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58

AYURVEDIC ENCYCLOPAEDIA

THEORIES OF AYURVEDA

(Volume I)



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EDITOR'S PREFACE

This is a Commemoration Volume. A few weeks before my 75th birthday i.e. the 3rd March, 1955, one of my students, Ayurveda Acharya Mukkamala Venkata Shastri of Vijayawada, conceived the idea that a Commemoration Volume consisting of the felicitations and the reminiscences received from my friends and admirers on the occasion of the celebration of my 75th birthday might be published as a mark of respect towards me. He issued an appeal. Another student of mine, Sri Bhishagvara Veturi Sankara Shastri of Muktyala wished to publish a Birthday Special Number of his Journal "Sri Dhanvantari" as a symbol of the deep sense of devotion to me as his Guru. I myself thought that the enthusiasm on the part of my students and followers should be canalised and utilised for some useful purpose.

I felt deeply grateful to Almighty God for giving me this youthful vigour and mental alertness at this age when so many of my playmates and classmates have disappeared when quite young. I wanted to devote my energy to the sacred task of collecting all the available information on Ayurveda, which has accumulated during the present generation into a comprehensive volume and offer it to the All-Merciful God as a sacrificial offering (Yajna) as a symbol of my gratitude to Him.

I issued an appeal individually to over 100 scholars all over India to contribute their mite to this Gnana Yajna as a Dana (Gift of Knowledge) as their sacrificial offering. Some circulars were issued giving my suggestions regarding the plan of the work and indicating the special subjects on which the articles are to be contributed.

A Board of Editors consisting of five members was constituted by the 40th All India Ayurvedic Congress held at Trivandrum. The response was very sincere. But some of the article fell short of the standard that I set for them. Several others had to be omitted on account of their overlapping each other.

Therefore, more than half of the articles had to be rejected for some reason or other. I had to take upon myself the duty of compiling the bulk of the matter myself, in order to make the Encyclopaedia worthy of the name.

My heartfelt thanks are due to all those who have contributed the articles and I offer my apology to all those whose articles are not included in the present Volume as it is published.

I must mention here how the Commemoration Volume came to be called the Ayurvedic Encyclopaedia. I know that the name of Encyclopaedia is a very ambitious name. I entrusted to Sri Ayurveda Mahopadhyaya T. P. Ramanujaswamy Garu of Ramathirtham, the work of compiling all the available information from the Ayurvedic texts on the subject of day-to-day practice of Ayurveda in a very concise manner, so that it may be handed over for a busy general practitioner of Ayurveda for consultation. He is without any question the greatest authority both in theory and practice of Ayurveda. I wanted to name the volume Ayurveda Chikitsa Sangraha (Manual of Ayurvedic Treatment) and requested him to be as concise as possible. His articles were no doubt concise, but also very exhaustive. I tried to abridge them but I could not remove even one sentence without spoiling the utility of the book. I, therefore decided not to restrict him, but to name this work the Ayurveda Chikitsa Sarvaswam, as I thought that it richly deserved the name. I then requested him to include all the information that he wanted to do on each subject. This is how the volumes are now called the Ayurvedic Encyclopaedia—Ayurveda Vijnana Sarvaswam. I have satisfied myself because the volumes deal with the Ashtangas of Ayurveda as far as is possible. I may also say that these volumes contain all that I know of Ayurveda and I feel that I have only done my duty in placing them before the scientific world for their scrutiny.

There is no limit to knowledge. The best Encyclopaedia can only be imperfect because human knowledge is growing daily by experience.

I request the public to accept the Encyclopaedia in the spirit in which it is offered, with all its defects and to build upon it their own additions and alterations. Only two Volumes are now published. Manuscripts for three or four Volumes are now ready. They are awaiting publication as soon as funds become available.

As soon as the publication of the Ayurvedic Encyclopaedia was known to him, His Excellency Dr. B. Pattabhi Sitaramaya Garu, Governor of Madhya Pradesh, and Justice P. Satyanarayana

Rao Garu, Judge of the Andhra High Court sent me a donation of Rs. 1,000/- each as a token of their high appreciation of this idea. A few others have also sent me some donations.

I thank the Andhra Government and the Government of India for coming to my help in the publication of this work. My heartfelt thanks are due to the Board of Editors who encouraged me in this difficult task, and to all the contributors for their sincere efforts to help the cause of Ayurveda. My thanks are especially due to Sri Ayurveda Mahopadhyaya T. P. Ramanujaswamy Garu of Ramathirtham and to Sri Ayurvedacharya Tejomurtula Gurunatham Garu of Ramachandrapuram, East Godavari District. Many thanks are also due to Pandit Kaladi Parameswaran Pillai, Research Professor of the Ayurvedic College, Trivandrum, for his undertaking to scrutinise the manuscripts.

I also thank the typists who undertook the laborious task of typing the manuscripts; the Devanagari Power Press, Guntur, and the Cosmic Press, Madras, for promptly executing the printing, and Dr. Valluru Subba Rao Garu, Guntur, and others for helping me in the printing of the Ayurveda Encyclopaedia.

MADRAS
28-9-58

A. Lakshmipathi
Chief Editor

VIVEKANANDA OF AYURVEDA (Dr. L. Mirchandani)

Indian culture has within its depths great treasures of thought, which hold true for all times and for all countries. But these truths which were uttered many many years ago, must be restated in a language which the modern man can understand. The essence does not change, only the form in which it is presented changes. When Hinduism was at its lowest ebb, Swami Vivekananda came forward, used his modern education to dive into the ancient religion and brought to the surface precious gems which the people of his day could appreciate. Like Vivekananda, Dr. Lakshmipathi appeared at a critical time. Fostered at first by an alien government, modern medicine captured the faith of the present day Indians by its brilliant success in certain fields. Neglected by authority and misused by quacks, Ayurveda was in great danger of dying out. There were learned and sincere Ayurvedic pandits but they could not interpret ancient science to the modern man. At this juncture came Dr. Lakshmipathi, a brilliant product of modern medicine and it was his life's mission to revive Ayurveda. As a principal of an Ayurvedic college, he infused the spirit of modern science into the students of this ancient art. He used modern machines to prepare medicines out of old prescriptions so that the public may have them in an attractive unadulterated form in plenty. Last but not least are his publications where he presents ancient thoughts in a lucid and simple style to the modern man. He advocated the study of Ayurveda not only because it is a better and cheaper system than the modern one, but more because in it are synthesised the positive values of all the Indian sciences that contribute to make our civilization the grandest in the world. Ayurveda looks upon disease as an accident and treats it as such; however its avowed object is to promote perfect health. Dr. Lakshmipathi is a strong champion of this outlook, and has strived hard to rouse public interest in building health. He does not merely preach but also practices what he preaches. At seventy five, he is far more alert both in body and spirit than many a young person.

Today we spend much thought and energy on every other pursuit except that of building up our bodies. Not so our forefathers. "Dharmartha Kama Mokshanam, Arogyam Mula

Muttamam" they said and had the wisdom to include Ayurveda in the general curriculum of every student. Besides it was an obligatory duty of a house-wife to collect and preserve house-hold remedies. The Vaidyas were enjoined to use mostly those drugs which grew in their locality. Thus, people had considerable knowledge of most of the simple cures. Gradually, his wealth of knowledge is being lost except in villages and among the poor. The richer and more educated the people, the more dependent and helpless they are. This is because the doctors trained in modern medicine prescribe drugs prepared in big factories and rely mostly on Western literature. If only they knew the value of innumerable remedies all around them, their patients would soon learn to administer first-aid treatment to themselves. "One Hundred Useful Drugs" a booklet published by Dr. Lakshmipathi will be of great assistance to such doctors who wish to really serve their patients and country. This is certainly one way of relieving the great shortage of medical personnel.

Dr. Lakshmipathi condemns the commercial outlook that exists in the medical profession today. Ayurveda presents a very high code of medical ethics and here are some quotations from the doctors's books.

"Janmanajayate Sudrah; Karmana Jayate Dwija."— At birth, all are equal and of low caste. But by actions one rises to a higher caste. "Vidya Samapta Bhishajah Dwitiya (tritaha) Jati Ruchhyate." Thus at the completion of his education, a physician attains a higher caste of Rishis.

Ayurveda has within it, a profound training and does set up a high moral standard. India has special reverence for the physicians, because they expect them to be selfless workers.

*Na-ardhartham (Na atmardham)
Na-api Kamardham
Adha Bhutadayamprati
Yo Vartate chlkitsayam
Sa Sarva mati Vartate
Nahi Jivita Danadhi
Danamanyat Visishyate*

(Charaka Sutra Ch. I. 58-63)

"He, who undertakes the treatment not for money nor for self, nor for desires but for compassion alone, transcends all beings,

for there is no gift greater than the gift of life.”

To the overzealous research workers, Ayurveda administers a warning.

*Yatha Visham Yatha Sastram
Yatha Agnih Asaniryatha
Tatha aushadham Avijnatam
Vijnatam Amritam Yatha.*

(Charaka Sutra Ch. 1. V. 123)

“That medicine which is used without accurate knowledge is as dangerous as a poison, a dagger, a faggot of fire or a thunderbolt, but a medicine of which the physician has a good knowledge is like nectar.”

Another caution against the blind use of drugs prescribed by successful brother doctors is contained in the following verse.

*Sastram Sastram Salilam
Gunadosha Pravrittaye.
Patrapekshini Atah Prajnam
Chikitsartham Visodhayet.*

(Charaka-Chikitsa I. V. 20)

“A sword, a science or a water course depend, for the exhibition of their merit or danger, upon the operator who wields them.”

A long term policy in the interest of the patient rather than a quick superficial cure as sedatives or antibiotics is advocated in the verse below:—

*Prayogah Samayet Vyadhim
Na-anyam Udirayet
Naasou Visuddhahi Sudhastu
Samayet Yo Na Kopayet*

(Vaghbata Sutra Ch. 13.)

“No medicine or course of treatment should be given by a physician, which while causing some relief of the symptoms or curing a particular disease, also creates subsequently some complications or diseases, which may be worse than the original disease. It is not a good treatment. The best treatment is that

which cures a disease without creating any complications.”

Dr. Lakshmipathi has fought and is still fighting a valiant battle for the sake of principles laid down in the above verses. We must bear these verses in mind, when confronted with plausible drug agents displaying attractive advertisements of the latest drugs claiming improvement over all previous ones. This, however, does not mean that we must not take advantage of advances in knowledge, which is an evergreen tree, constantly shooting out buds. Caution must be exercised in doing so.

Lastly, Dr. Lakshmipathi thinks that those who are trained in modern medicine would do well to take a peep into the vast field of Ayurveda and pick up some grains of knowledge. Our whole culture is one of synthesis. Like the great Ganges, it has absorbed the waters of many rivers while never losing itself. Let us gain new wealth by our contact with the West, but let us not lose that which our forefathers have bequeathed to us. This, in short, is the message of the great patriot doctor.

CHAPTER I

HISTORICAL BACKGROUND (BHAAARATHEEYA VIGNAANA)

THE RIGHT ATTITUDE

The beauty of a dimond is best appreciated when it is properly set in a jewel. Similarly the superiority of Aayurveda can be best realised when the intellectual, cultural and social environments which relate to Aayurveda are also studied in their own setting.

The scope of Aayurveda is very vast. The superiority of Aayurveda lies in the study of the Prakriti, that is, the constitution of man such as Vaataprakriti, Pittaprakriti and Kaphaprakriti—the Nervous type, the Katabolic type and the Anabolic type—and their combinations in several ways.

Great importance is laid on the study of the soil, namely the man and not on the seed of disease, the microbe. Aayurveda can adopt both the allopathic and homocopathic approach to treatment for the purpose of establishing the equilibrium in the soil which is health.

When once the equilibrium is established, the soil is immune to any attack of diseases from inside or outside.

A machine which is disordered cannot repair itself. The machine requires the help of man to repair it. The science of Aayurveda says that the repairer - the Aatma - resides within the

machine. It is the Director who controls all our activities. The soul force is sometimes mysterious, unpredictable and unmeasurable. Therefore Aayurveda is called an Aahyaatma Science.

The portion of Aayurveda dealing with drugs is the least important part of Aayurveda.

Once the approach is correctly determined, any drug or regulation of diet and conduct may be used to restore the equilibrium. Emotions like anger and greed are diseases-Raagaadi Rogaas. When you make the patient angry, you increase the flow of blood in certain tissues and this cures a disease of the Kapha type, whereas the same treatment will increase a disease of the Pitta type. One research worker said that he fed an unwilling guinea pig with some Guntagalagara Leaf (*Eclipta Alba*) for experiments on that drug. The secretions produced in its body were quite different from what they would have been if the animal had liked it and eaten it greedily. This makes all the difference in the results of the experiment.

Let Aayurveda get rid of the shackles placed upon it by the allopathic doctors, and you will find then that Aayurveda will lead the world's medical science again. An allopathic doctor who studies Aayurveda may use an antibiotic of modern science with better effect. Aayurveda wants all help from the modern scientists but only as helpers and not as masters.

Aayurveda is getting its recognition in America and Europe. One of the best articles for the Aayurvedic Encyclopaedia has come from a doctor from America. But, here in India, our allopathic doctors who do not care to study it carefully will say that it is a useless book, because they cannot understand or they refuse to understand anything new. They have built a prison wall around themselves and refuse to be influenced by anything beyond it.

The education of the medical students should be comprehensive of all the four aspirations of man - Dharma, Artha, Kaama and Moksha. Dharma is Righteous Conduct in relation to Society, Artha is the Acquisition of Wealth for providing a comfortable economic status, Kaama is the satisfactory enjoyment of all reasonable desires and finally Moksha is liberation from bondage of the mind or Self - Realisation and Salvation. Aayurveda is the study of life and of the environments which make life

not only happy but also beneficial to oneself and to society. Modern medical science has to advance very much to reach this all-comprehensive ideal.

The right attitude will be to keep an open mind and study Aayurveda without any prejudice that it is old and therefore not fit for consideration. Aayurveda is ancient but it has a capacity to be ever growing new— "PURAANANCHAPUNAR-NAVAM."

Although the foreign system of medicine enjoyed State patronage for over a century and although patients were treated free according to allopathy in big hospitals conducted at the expense of the Government, over 80% of the people even now resort to the Aayurvedic Medical Practitioners. This only proves that the system is always alive in the minds of the people and that Aayurveda as a system is deeply rooted in the soil.

THE MERITS OF AAYURVEDA

The merits of Aayurveda are its truly scientific attitude, its philosophical outlook, its Aadhyaathmika basis, the Pancha Bhootha Siddhaantha, the Tridosha Siddhaantha and the development of superior powers helping the concentration of mind, in the diagnosis and control of emotions in treatment. The other merits of Aayurveda are the comparative safety in the administration of drugs, the elaborate and elastic Pharmacopoea, the cheapness of the drugs and prepared medicines, the external aids such as Nasyam (medication through Nasal Passage), Mardanam (Physio-treatment by Massage), Swedakarma (Sweating), Vyaayaamam (Regulated physical exercises), Suryatapam (Sun baths), Langhanam (Fasting), Pooja (Prayers), Theerthaadana (Pilgrimages), Yaatra-gamanam (Visits to health resorts and places of worship), Sadvrittham (Good conduct), etc., which is inculcated from childhood by a rigorous discipline. Service to humanity (Bhootha Daya) and not profit is the goal and motto of the Aayurvedic physician. The knowledge of Aayurveda is endless—Annatapaaram. The student can learn even from an enemy, if the acquisition of knowledge tends to fame, long life and prosperity. The initiative for original research is thus encouraged.

THE COMBINATION OF WESTERN AND EASTERN SYSTEMS OF MEDICINE

During the course of his lengthy address delivered at the Colombo All India Aayurveda Congress, the President, Jogendra Nath Sen, Kaviratna, M. A., said, "We generally find that our first impressions are very strong and man by nature is conservative. Once a student acquires medical knowledge through the Western method, he will, later on, test the merit of Aayurveda according as it tallies with his science or not. The result will be, that he will not only reject all portions in Aayurveda that will appear to him as conflicting with his former ideas, but where both equally apply, it is ten to one that he will avail himself of the Western system rather than Aayurveda. He will hunt up the European Pharmacopoea or medicines, rather than the Indian. Tolerable knowledge of Sanskrit language and sufficient training in the six Darsanas alone can give the necessary basic scientific-mindedness to a student who wishes to begin the study of Aayurveda. Want of these conditions can never be made up by the education in English language and Western natural sciences. They will, on the other hand, vitiate the reasoning method necessary to the study and adopted by the Aayurvedic physicians, who have their stock of knowledge increased by the rational and supplementary study of other systems of medicine. We want other systems to supplement and not to supplant Aayurveda. It would therefore be more to our purpose to educate our students thoroughly in Aayurveda first, and then to allow them to make comparative studies of other systems. Of course even during the Aayurvedic study of Anatomy, Physiology and Surgery, they may derive help from the Western system, but they must remember that the other systems are always to supplement their national science and never to replace it."

AAYURVEDA, THE MIRROR OF INDIAN CULTURE

Hindu culture is like a statue carved out of one stone. All its sciences and its metaphysics and ethics, its politics and economics are all of a piece. The same spirit animates the whole as

CHAPTER I

THE TEST OF CIVILISATION

well as the parts. Here religion is not divorced from science nor morality from art, nor psychology from physiology. Here, the medical man does not look upon the patient as a mere body.

Both the man of Science and the man of Religion look upon the individual as a complex unity of body, mind and spirit

"Sareerendriya Satwa Aatma Samyogah Aayahu."

(Charaka Sutra)

EVOLUTION OF THE UNIVERSE

The evolution of the universe is gradually from mineral to plants, from plants to animals and from animals to man. Thus, there is a spiritual progression on a vast scale. We see only the intermediate stages, not the beginning or the end of this progression. (Geeta - Ch. 28).

"Mysterious is the origin of beings,

Manifest is their intermediate stage, oh Arjuna !

And Mysterious again is their end"

No one can ever know how the primal spirit—the absolute—came to divide itself into subject and object—into Aatma and Anaatma—and start the process of evolution. God is the goal as well as the starting point of this Universe. He is around us and within us in the shape of spiritual values like goodness, beauty, and truth. Unlike animals and plants, man has a will of his own by which he can make or mar himself. His salvation is in his exercising his will and subordinating the lower values of matter and rising to the higher values of spirit and thus steadily growing divine.

RIGHTEOUSNESS - THE TEST OF CIVILISATION

The greatest of nations is not to be judged by the empires they possessed or the wealth they accumulated but by the degrees of righteousness that they cultivated. This is very well illustrated in our epics of Raamaayana and Mahaabhaaratha. There is no doubt that the civilisation of Lanka was richer by measure of wealth, power and scientific knowledge than the civilisation of Ayodhya. Raavana had aeroplanes which Raama had not.

Duryodhana and his brothers were far richer and far more powerful and ingenious than the Paandava brothers. Compare these two opposing civilisations - wealth, power, skill and scientific knowledge on one side, virtue and humility, patience and desire to do what is right on the other. These epics and others laid the foundations of our civilisations in accordance with the spirit revealed in the Vedas. Their whole teaching is that man's true progress is to be judged by moral and spiritual standards and not by material or scientific standards. Dharma is the supreme standard of life. It is the test that we have to apply to all civilisations.

The four classes in an ideal society, the four stages of life, i. e., the four Varnaas and the four Aasramas, are intended respectively for the elevation of the ignorant lower classes and the innocent child by progressive spiritual education.

The four ends of life, namely, Dharma (Virtue), Artha (Wealth), Kaama (Desire) and Moksha (Liberation), which are called the Purusharthas - the recognised ends of life - represent the principles of spiritual progression. The four stages of consciousness of man—Jaagrita (Waking), Swapna (Dreaming), Sushupti (Sleeping) and Tureeya (The Transcendental Consciousness)—are here the turns of progressive series as we proceed from the outer to the inner recesses of man's being.

These four stages correspond to the minerals, plants, animals and man in the evolution of spiritual progression. Thus in the living rock of Hindu Dharma, we have a formula of four classes of living beings, of four classes of an ideal society, of four stages of consciousness and four grades of individual soul, embodying them and the same law—the law of spiritual progression—which is the living rock out of which Hindu Dharma is carved.

UNIVERSITIES IN ANCIENT INDIA

The Indian idea of education has been to treat it as a secret and sacred process, the process of an individual's inner growth which can only be achieved by means of a constant and close relationship between the pupil and the teacher, whose personal and sleepless vigilance counted most in the pupil's education. It involved the

bringing out of the latent capacities, potentialities and the personality of the pupil. It is a process of biological development and not a mere mechanical process operating on a collective basis. The artificial device of massing students with different mental, moral and physical capacities which nature has created among individuals into one class is like treating the patients, differing as to their ailments, with the same prescriptions, remedies and medicines in a hospital. India always has taken education as a means of self-growth and self-fulfilment which must be a supremely private concern of the individual associated with his teacher in the pursuit of that all-absorbing task and mission of his life. The educational system of ancient India was thus based upon the personal relationship between the pupil and the chosen preceptor and the institution was the home of the preceptor—the hermitage located in a sylvan retreat away from the dust and hum of the cities, the distractions of urban life, its bustle and strife, in solitude and silence. India's civilisation has been pre-eminently not an urban but a rural civilisation. It is the product of her forest and not of her crowded and materialistic cities. As in education so in industry. India believed in the domestic system, in the method of small production. Giving importance to quality rather than quantity, all artistic work is the product of the divine skill implanted in the hand and not the product of the machine. The development of personalities depends very much on the human factor, on the individual attention and treatment on the part of the teacher. Mental and spiritual growth cannot be achieved by mere external machinery, apparatus or organisations. It cannot be achieved solely by schools and methods of congregational worship as in mosques and churches. India was not however lacking in religious institutions like temples, Mathas, and Tirthas or places of pilgrimage where crowds gather in the interest of religious life. There is however solitude in a crowd. A pilgrim in a crowded temple on a sacred day of festival is free to say his personal prayers by himself in his own way and in secret depending on one fundamental factor described as "Chitta Vriddhi Niroha" i. e., closing up of all avenues of influences from the external world which might distract the mind so that spiritual life may grow freely, in the atmosphere of inner peace and quiet. Thus, in all fields of human activity mechanisation

was considered fatal to the development of the mind and the soul which should be left free to grow in the natural way like the living organisms.

CONFERENCES AND TRAINING SCHOOLS

In ancient India conferences were convened by kings at their courts and they were attended by learned persons from the distant parts of India. Reference to such conferences are not only found in Aayurvedic literature but these conferences were also held for discussions on philosophy and religion. Scholars were wandering through the country in quest of principal centres and exponents for further advancement of their knowledge by means of learned discussions in the localities. It is stated that the king of Panchaala went out of his palace every morning to attend the meeting of a Parishad (academy) and to cultivate the company of the greatest men of learning in his country.

In the Buddhistic period, the Vihaaraas or monasteries were functioning mainly as centres of regular learning and the universities of Naalanda, Vikramasila, Jagaddala, Odantapuri, Valabhi, Mithila, and Nadia were famous. As these were post-graduate universities, admission to them was by no means easy. Naalanda was an international centre of learning and had students from various distant and different countries of Asia like Korea, Mongolia, Bokhara, Japan, China and Tibet. I. Tsing counts 56 such foreign scholars as residents at Naalanda in his time, among whom was a Tartar.

A RESIDENTIAL UNIVERSITY

Naalanda was the largest residential university that India had ever seen. It accommodated within its precincts a vast university colony, a population comprising of 8,500 pupils, 1500 teachers, together with executive and menial staff, so that its population may be estimated at about 12,000. The University undertook a heavy burden of obligations towards giving its students and teachers numbering about 10,000 free lodging, free food, free clothing, etc. There was then no idea of deriving a part of its expenses from the

income from fees to be levied on students. Education was made free by the liberally endowed grants of land. At the time of I. Tsing the number of the University's villages increased to more than 200. During Yuan Chwang's time, it counted in its possession as many as 200 villages. The University thus became a very big landlord of the locality. It depended upon its villages for the supply of daily food for its population. There was a steady flow of these supplies day by day, a daily supply of about 300 maunds of rice and several hundred maunds of butter and milk. The rice came from its paddy fields and butter and milk from its village dairies. The contract for this daily supply was taken over by 200 householders of these 200 villages, each of whom must have been the Graamanai of his village.

It is to be duly noted that the grants of lands made in favour of the University carried with them certain obligations which the University had to undertake. It was left to the University to make the lands profitable so that it could maintain itself out of these profits. The University had to make the cultivation of its paddy fields profitable. It had thus to organise an efficient agricultural department which could extract the utmost profit out of the cultivation of the lands. Thus, the system of the educational endowments meant that agriculture was to be the concern of the Colleges and Universities, instead of being consigned to the care of the ignorant, illiterate and indigent peasantry.

INDIVIDUAL TREATMENT ADHERED TO

We have just now noted that Naalanda provided for 1500 teachers for giving instruction to 8500 students. The high proportion which the number of teachers bears to the taught only shows that the method of individual treatment in education was still adhered to as far as possible in the midst of a vast collectivist organisation. It is also stated that as many as 100 chairs or pulpits were arranged every day for lectures or discourses to be delivered by as many different teachers "and the students attend those discourses without fail even for a minute" as observed by Yuan Chwang. This means that 100 different lectures were being delivered on 100 different topics to 100 different classes of students every day.

OTHER COUNTRIES INFLUENCED BY INDIAN THOUGHT

It may be noted in conclusion that the students of Naalandaa took a leading part in the intellectual life not merely of India but also of countries nearby. For centuries the students of Naalandaa went out in unending streams to work in foreign countries like Nepal, Tibet, and China, to introduce to them the wisdom of India and the texts in which it was embodied. These texts were difficult philosophical and religious texts written in difficult Sanskrit and Paali. The Indian scholars were at work for centuries carrying on their self-imposed mission which they took to as a religious obligation, in translating these Indian texts into the languages of their own countries. Thus, these teachers and scholars of Naalandaa were not merely adepts in profound philosophy; the Naalandaa University developed efficient schools of Tibetan, Nepalese and Chinese studies in addition to the indigenous schools of Sanskrit and Paali, so as to be able to turn out scholars who would be linguistically equipped for carrying on their work in the aforesaid foreign languages like Chinese and Tibetan. The development of what may be called Greater India was one of the unique achievements of the University of Naalandaa.

THE UNIVERSITY OF TAKSHILA OR TAKSHASILA

The centre of medical education in those days was Takshila. Jeevaka, who is said to have lived in the 6th century B. C. and who was a famous physician in Buddha's time, spent seven years here to complete his education. The same principle of individual and intimate relationship between the teacher and the taught living together as members of the same family and homestead was also operative in regard to medical education. Even cranial surgery was practised by Jeevaka in those days and he was reported to have travelled to Egypt at the request of the King Bimbasaara and performed several operations in the Royal Family there.

BRIEF HISTORICAL SURVEY OF HINDUSTHAAN

The Aayurvedic student must know the Sampradaaya, i. e., the customs and habits of the people—"Desakaalagna". We should be able to pay due attention to all the environments of time and place concerning every individual and should properly estimate and appreciate the value of the various circumstances, social and cultural, relating to the individual's past and present.

The Aayurvedic physician should therefore be conversant not only with the science of medicine but all other sciences.

*"Swatantra Kusala Anyeshu Saastraertheshu—Abhahishkritah
Vaidyo Dhwaia Invaabhaati Nripataavidhapoojitha."*

(S. S. 34-17.)

(i. e.) "A physician, well versed in his own technical science, and commanding a fair knowledge of other allied branches of study as well, is glorified by his king and the nobles, and is like a banner of victory and ornament to the state. A qualified physician is compared to a skilful helmsman who can take across the waters even a boat lacking rudder."

*"Vaidyastu Gunavanekastaaryedaaturaan Sadaa
Plavam Pratitarairheenam Karna - Dhaara Ivaambhasi."*

A Vaidya should therefore be an all round scholar and for that purpose, he is enjoined to study the various sciences under respective teachers who are masters of the particular sciences.

BHARATHA KHANDA

The name of our country was and has been Bhaaratha Khanda—the country ruled by Bharatha. Foreigners introduced the word India, which is a corrupt form of the word Hindu. The word Hindu itself is derived from Sindhu, the name of the river on the banks of which the Aaryans first settled. Both the words Bharatha and Hindustaan have now become familiar to us.

We have divided the history of Hindustan into six periods called Yugaas.

1. Puraatana Yuga—From time immemorial to 50,000 B. C.
2. Aarya Yuga—From 50,000 B. C. to 1000 B. C.
3. Bauddha Yuga—From 1000 B. C. to 300 A. D.
4. Pauraanika Yuga—From 300 A. D. to 1000 A. D.
5. Bhakti Yuga—From 1000 A. D. to 1858 A. D. and
6. Aadhunika Yuga—From 1858 A. D. upto the present time.

PURAAANTANA YUGA

(From time immemorial to 50,000 B. C.)

It has now been definitely proved from geological evidence that a vast sea existed between the Himalayaas and the Vindhya Mountains. This sea extended from the Punjab to Bengal. In Rig-Veda (10-13-5), there is a reference to the Eastern Sea (POORVA SAMUDRA) which must have been this sea. This POORVA SAMUDRA described in Rig-Veda cannot be the Bay of Bengal.

All the geologists of India including Wadia (Geology of India—1919) and H. G. Wells (Outline of History) estimated that 50,000 years ago there was a sea connecting the present Arabian Sea with the present Bay of Bengal and separating the northern Himalayan country from Southern Deccan. From this evidence, it was concluded that the date of the Rig-Veda must have been earlier than 50,000 years from this day.

THE AGE OF THE AARYANS

(50,000 B. C. to 1,000 B. C.—Aarya Yuga.)

At first the Aaryans settled in the Punjab and this stage is reflected in the Rig-Veda. The term Aarya means noble. It denotes more a quality rather than a class. Recently the remains of the civilisation of a people who lived in the Indus Valley have been unearthed at Mohenjo-Daro (Sindh) and Harappa (Punjab). The theory that the date of the Vedas was only 3000 years B. C. has been exploded. From the description of the eastern sea (POORVA SAMUDRA) and of the deserts described in the later portions of the Vedas, it is evident that the date of the earlier portion of the Vedas was over 50,000 years.

HOUSES

Mohenjo - Daro, literally the mound of the dead, is now nearly 70 feet above the ground level at that place. The remains are in 7 layers extending to a depth of 120 ft. At Harappa a house was 162 ft. long and in its foundations it contained rooms which were 57 ft. long and 17 ft. broad, with small rooms in between. There are steps leading to one of the larger halls from below, and in the sides of the halls, there are rooms or houses. The walls are burnt bricks and the stouter ones are 9 ft. at the base. Two brick kilns have been unearthed. Wedge-shaped bricks were used round the walls.

BATHROOMS AND DRAINAGE

There are bathrooms and an elaborate system of drainage. One drain at Mohenjo-daro is 6 ft. high inside and is built artistically. There are nice bathrooms built so as to have a definite slope towards the street sides from which a channel leads all the water into the street pipe, which is connected with the street drain. In some places, pipes leading from bathrooms in the upper storeys are connected with these canals, so that a perfect and elaborate system of drainage leading from homes and connecting channels of the street drains, which take away the drainage to the end of the street, has been discovered. One of the texts of YAJURVEDA (TAITIRIYA BRAHMANA 111) refers to the dismantling of a brick wall of the AARYANS by the enemies. There are wide under-ground cellars which afforded retreat in the summer months. The thresholds of houses are considerably higher than the street level showing that there was evidence of anxiety from floods. Floods were known in the earliest books of the RIGVEDA and one hymn in the seventh book records that floods on the RAAVI abated in response to the prayers of VASISHTA. There were court-yards in front of the houses and the doors opened inside and not on to the verandah. The inference is that this civilisation might have belonged to the VEDIC period.

TEMPLES

Some of these elaborate edifices may really have been temples. A pillared hall (MANDAPAM) had its roof supported by 20 brick pillars, disposed in rows of five each. The chief seat was in the middle of the south side of the hall. But no trace of an image-base has come to us. We may assume that the idols, if any, were made of wood or other perishable materials. Square niches in the walls of two rooms in Mohenja-daro give this portion the look of a temple. The large halls of Harappa cannot be explained otherwise than as halls of sacrifice or of congregational worship. Evidence of rounded street corners possibly point out to processions along the streets.

HOSPITALS

These buildings remind us of the description of the construction of hospitals — AATURAALAYAAS — with strong walls, spacious rooms, high ceilings, fitted and equipped with all comforts and separate accommodation for kitchens, bathrooms, lavatories etc., described in UPAKALPANIYAADHYAYA in CHARAKA SAMHITA, BOOK 1 - Ch. XV.

*“Dridham, Nivaatam, Pravaataika Desam,
Sukha Pravichaaram, Anupatyakam,
Dhoomatapajalarajasaam Anabhigamaneeyam
Sodapaanolukhalamushala Varchasthaana Snaanabhoomi
Mahaanasopetam, Vaastu Vidyaa
Kusalah Prasastam Grihameva.
Taavatpoorvamupakalpayet.”*

(i. e.) in the first place, a mansion must be constructed under the supervision of an engineer well conversant with the science of building mansions and houses. It should be spacious and roomy. The element of strength should not be wanting in it. No part of it should be exposed to strong winds. Every portion should be open to the currents of fresh air (i. e.) freely ventilated.

It should be such that one may move or walk through it with ease. It should not be exposed to smoke, or the heat of the sun, or

injurious sound, touch, taste and foul smell. It should be furnished with a well, with pestles and mortars, privies and accommodation for bathing, and for kitchens.

HUMAN FIGURES

The men have their hands about their knees and some figures of both Harappa and Mohenjo - daro have NAAGA-HOOD. The NIJAANUKA posture of men (hands about the knees) is described in one of the later Vedic text books. One of the figures on the seats is cross-legged in meditation and has been interpreted as a Hindu God in pose. The curious half-kneeling posture with the right knee is that exactly used by the Hindus to this day at the rites to their Pitrus. The hands rest on the knees between which a fold of the skirt - like garment is stretched. The UPAVEETA mode of dressing where the left arm and hand are shapeless, and are hidden beneath the shawls and the right arm and hand are bare as the shawl is underneath, appears to be the prevailing mode of wearing robes. This mode was initiated in Hindustan in the later Vedic Age. Other figures show the Hindu Tilaka—mark in the centre of the forehead as well as Upaveeta or holy thread.

One of the female figures is suckling her baby, another clasping something to her breast and a third is apparently a Goddess fighting with a lion or a tiger. The upper arms are covered with armlets right up to the shoulder, as is now the fashion with newly - wedded women of Sindh and Rajputana. The women are semi-nude. The attenuated waist and the exaggerated hips are truly Indian. The trefolis and circles on the dhoti look prominent and are sewn and not woven. The human statuary does not resemble that of any other country.

ENGRAVINGS AND SEALS

In addition to other engravings of tigers, crocodiles, elephants, and antelopes which are found on the seals and on the pottery, we also find PIPPALI TREE (ASVATAA) which is the tree of Eternity in the Vedic Texts. It is the tree of wisdom of the Buddhists. But the most interesting animals on seals are the horse and humped

bull. The hump is described in numerous Vedic texts. Toy carts (MRICHCHAKATIKAS), one made of bronze and others made of pottery are found in the excavations, so also the interesting symbols of the wheel and SWASTIKA on several seals. The symbol SWASTHIKA migrated from India to all parts of the ancient world. In one case, the obverse is an involved sign of triangles; in another, there is a square design.

COMMERCIAL INTERCOURSE

*“Etaddesa Prassootasya Sakaasaadagraj
anmanah Svam Svam Charitram Siksheran
Pruthivyaam Sarwamaanavaahah.”*

(Manu—2.20.)

There is no doubt that there was intimate connection between India, Mesopotamia and other parts of the ancient cultured world. There were connections with South India from which the pearl, the conch and other materials should have come.

The wide extent of civilisation and the entirely Indian character of the excavations show that the migration of human beings started from the East to the West.

Archaeological evidence shows that the present Sindh, Africa and Australia, including Southern Hindustan, Ceylon and the Islands of Malaya together formed a big continent called Lemoria. A large portion of land belonging to this area is now under water. Sir John Ivans believes, as a result of his investigations in relation to different races, that the Northern and Mediterranean races proceeded to those parts of the globe, which they now inhabit, from Southern India. Ancient Egyptian traditions also is to the effect that their original home was eastwards across the seas. There is no doubt that there was commercial intercourse between the Tamil country and the Mesopotamian valley and that the trade of South India extended to Egypt three or four thousand years before Christ. The traditional accounts of the old Tamil classics tells us that an angry sea swept away the PAHRULI River carrying away several ranges of hills and a goodly portion of the Paandya territories and many accumulated treasures of several centuries.

The literary academy of Madura, the last Sangham, is said to have lasted for a period of 1850 years, during the reign of 46 kings and set its seal of approval on the compositions of 449 poets. The last of the Paandya kings referred to in the Sangham works ruled over South India some time about the end of the 2nd century A. D. At the time of the Mahaabhaaratha war, there appear to have been political and social connections between North and South India, and the Paandya kings trace their relationship to the Paandavas. From all these traditional accounts and the stories centering round the Sage Agasthya, it is quite possible that South India is very old.

Excavations of Aadichanallore in the Tinnevely District give evidence in some quantity of the existence of Paleolithic Man and a large abundance of the neolithic remains distributed over centres wide apart indicates that South India was geologically older than other parts of the world and that it was fairly occupied by man at that time and that he has continued to be there ever since. Geologists are of opinion that man should have lived in this area between the periods of 500,000 and 50,000 B. C.

DESCENT OF THE DRAVIDIANS

Some tribes of Aaryans appear to have left the earlier settlements in Aaryavartha and to have travelled eastwards along the low-lying sub-Himalayan tracts as far as Bengal and to have turned southwards round the eastern ranges of the Vindhya mountains and to have proceeded further south along the east coast as far south as KANYAAKUMAARI (Cape Comorin). A very strong evidence of their travels towards east and then south is afforded by the statements of these people, speaking a common language, colonizing here and there along the route. Even today, we find common words in the spoken languages of certain classes of people residing in Baluchistan (Brahui), in Bengal in the east and in Orissa, in Andhra country and in Tamil Nad in the south.

The theory of this exodus of these tribes from the Aaryavartha first towards the east and then south also supports the theory of the existence of the sea between the Southern portion of

the Aaryavartha and the Vindhya mountains as stated in the Rig-Veda. It is the sea that prevented them from having direct access southwards across the Vindhya mountains until a very late period.

HINDU ALMANACS

According to the Hindu calenders. the year 1955 A. D. was counted as the 5055th year from the beginning of Kaliyuga. That was the 5055th year in the 1st paada or quarter of the Kaliyuga, which belongs to the 25th Mahaayug of Vaivasvata Manvantaram the seventh Manvantara, (See Pauraanika yuga). Brahma, the Creator, is now in Swetavaraahakalpa, during the 1st day of his life, the total duration of his day being calculated as 4,32,00,00,000 years, (i. e.,) 1,000 Mahaayugaas.

The age of creation up till now is 195,58,85,055 years. The calculation of the geologists approaches this calculation very nearly as they also estimate the beginning of creation at about 2,000 million years ago.

FEDERATED STATES OF HINDUSTAN

During the vast complicated period of the history of Hindustan, it is difficult to separate one race from another; but we can say that the whole of the modern civilisation of Hindustan is overwhelmingly Aryan and that any pre-existing civilisation was assimilated into that civilisation. Hindustan was a Federation of States (or political divisions) 56 in number having 56 languages corresponding to these states, which existed from very ancient times. Those States are as follows:—

- | | |
|-------------------------------|-------------------------|
| 1. Anga (Monghyr). | 9. Sauraashtra (Surat). |
| 2. Vanga (Bengal). | 10. Mahaaraashtra. |
| 3. Kalinga (Orissa). | 11. Bangaala. |
| 4. Kaalinga (Greater Orissa). | 12. Maalava. |
| 5. Kaasmira (Kashmir). | 13. Magadha. |
| 6. Kaambhoja. | 14. Neepaala. |
| 7. Kaamaroopa (Assam). | 15. Kerala. |
| 8. Sauvira. | 16. Chola. |

- | | |
|-------------------------|--------------------------|
| 17. Paanchaal. | 37. Videha (Mithila) |
| 18. Gaula. | 38. Baahlika. |
| 19. Malayaala. | 39. Barbara. |
| 20. Sinhala. | 40. Kekaya. |
| 21. Dravida (Draavida). | 41. Kosala. |
| 22. Karnaata. | 42. Kuntala. |
| 23. Naata. | 43. Kiraata. |
| 24. Karvaata. | 44. Soorasena. |
| 25. Marvaata (Marwar). | 45. Sevana. |
| 26. Paanaata. | 46. Tenkapa. |
| 27. Paandya. | 47. Konkana. |
| 28. Pulinda. | 48. Matsya. |
| 29. Aandhra. | 49. Madra. |
| 30. Hoona. | 50. Paarsva. |
| 31. Dasaarna. | 51. Ghoorjara (Gujerat). |
| 32. Bhoja. | 52. Yavana. |
| 33. Kukkurru. | 53. Jaalandhara. |
| 34. Kuru. | 54. Saalva. |
| 35. Gaandhaara. | 55. Chedi. |
| 36. Vidarbha. | 56. Sindhuvati. |

*"Sindhuvatyaaadvaneke Viseshadesa Bhashaa
Bhoomipaala Chitrita Bharata Khande."*

The MAHAASANKALPA recited at the marriage ceremonies contains the traditional history of the various States that comprise the whole country called Bharatha Khanda. There are different readings in this Sankalpa. The Digvijayaas and Aswamedha Yajnaas performed by different Chakravarthis (Emperors) only meant the suzerainty of the emperor over others, but not an absolute sway. Each State had its own internal laws and administration.

SANAATHANA DHARMA - ETERNAL STREAM

Although the area of Hindustan is nearly equal to the whole of Europe without Russia, it is geographically and politically one country. Hinduism represents the culture of the Hindus, nothing more nor nothing less.

All the various factors and sects and religious systems of Hindustan that find shelter in its bosom accept Hindustan as their sacred land, of their saints, heroes and martyrs.

They consider it their PUNYABHOOMI, DEVABHOOMI AND KARMABHOOMI. The SANAATHANA DHARMA or the eternal stream of Hinduism flows continuously in this land. Although many small streams and tributaries also flow into it, the main stream is one that is common to all. This huge stream absorbs into it and assimilates like the sea receiving and assimilating the small and big rivers, so that the individuality of each disappears after assimilation into the general whole. As an illustration of it, may be quoted the MAHAASANKALPA above that is recited at all marriage ceremonies from Kanyaakumaari to Kailaasa from unknown times. All sections of people pray to the same Gods, Rama, Krishna, etc., although in different forms, and read the same fables and epics. The same rivers and Tirthaas are sacred to them. What other evidence of oneness can there be? All are proud to belong to Bharatha Khanda and hold Hindustan as their sacred JANMABHOOMI. They have one civilisation common to all of them. They claim to belong to as many as there are languages but they all belong to one State—the Federated State of Hindustan.

We all sing together the same song composed by one of our great poets, Mohammed Iqbal :—

*“Saare Jahaan Se Achha Hindosthaan Hamaaraa
Ham Bulbulen Hain Iske, Yih Gulistaan Hamaara
Parbat Woh Sab Se Unchaa Hansaaya Aasmaankaa
Woh Santari Hamaaraa, Woh Paasabaan Hamaraa
Godi Men Khelti Hain Iskee Hajaaro Nadiyaan
Gulsan Hai Jiske Damse Raske Jahaan Hamaaraa
Mazahab Nahin Sikhaataa Aapas Me Baira Karanaa
Hindee Hain Ham, Watanhai Hindostaan Hamaaraa.”*

“(i. e.,) The finest country in the world is our India. We are its nightingales, it is our rose garden. The highest mountain range, the neighbour of the sky, is our sentry and our protector; in its lap play thousands of rivers, which make of it a garden,

that is the envy of the world; religion does not teach us to bear enmity towards one another. We are Indians and our country is India.” In fact we now find that many of these States gradually merged into each other, so that we have only a dozen main linguistic provinces covering the whole land.

SANSKRIT, THE UNIFYING FORCE

All the 56 languages are derived from Sanskrit, though today the people speaking one provincial language cannot understand those speaking any other provincial language. “SANSKRIT is a key for a vast store of knowledge. A wide study of the SANSKRIT language and literature by the rising generations would contribute considerably to ameliorate communal dissensions and provincial antagonisms. SANSKRIT is the cementing force and is the greatest common measure of all the Indian Languages.” (The Hon. Mr. Patanjali Sasthri's Lecture. — 10 - 8 - 1943.)

The political structure of Hindustan may be said to have been laid in the Vedic period and even today, it remains almost the same as in those early times. The social organisation at that time was tribal. The people were divided into a number of tribes, which were called Janas. All those people who spoke the same language and who had the same habits and customs, lived in a tract of country which was called JANAPADA. The people of every Janapada are more or less an independent nation. Repeated waves of Aaryan immigration had inundated the whole country and by amalgamation, conquest or other means, the whole of Hindustan including Ceylon came to be considered as one called BHAARATHA VARSHA comprising as many as 56 MAHAJANAPADAAS or RAAJYAAS, which were represented in the Mahaabhaaratha. The river KAAVERI in the south became as sacred as the GANGES and KANCHI became the southern KAASI (BENARES)

DRAAVIDAAS AND GAUDAAS

The Pancha Draavidaas and Pancha Gaudaas with their respective languages mark the ten important divisions of Hindustan divided on language basis.

The Pancha Draavidaas are, 1. The Aandhraas, living in the Telugu country including Hyderabad and Mysore; 2. Tamils in Tamil Nad; 3. Kanaaries living in Karnaataka; 4. Mahaaraashtraas and 5. The Gujaratis living in their respective native lands. The province of Mahaaraashtra was carved out of the Telugu and Karnaataka areas. The Malayaalis belong to the Tamil section.

The Pancha Gaudaas are 1. The Saaraswatha in Kashmir and Punjab; 2. The Kanyaakubja in United Provinces and Bihar; 3. The Maithila in Bihar; 4. The Vanga in Bengal and 5. The Kaalingaas in Orissa. The chief languages of Hindustan today beginning from the North-West Frontier are 1. Pushtu. 2. Panjabi, 3. Hindi, 4. Bengali, 5. Oriya, 6. Aandhra, 7. Tamil, 8. Kanarese, 9. Malayalam, 10. Mahaaraashtra, 11. Gujarathi and 12. Sindhi.

These linguistic divisions should be kept in mind in any national reconstruction of India, because the life of the nation in the long run depends upon the cultural development through their languages.

THE VEDAAS

The term Vedaa literally means knowledge and as knowledge of God, Veda is eternal just like gravitation. Secondly, the term Veda is applied to the four great works viz., Rig Veda, Yajur Veda, Sama veda and Atharva Veda. Each of them is divided into 3 parts, the Samhithaas (Sacred Texts), the Braahmanaas (Commentaries) and the Aranyakaas (Forest Books). The Samhithaas and Braahmanaas (Commentaries) are loosely designated as Karmakaanda the portion pertaining to rituals and as the Upanisaads, Gnaana Kaanda, the portion dealing with supreme knowledge.

Although these Vedic Aaryans worshipped many Gods, Indra, Agni, Varuna and others, they realised that each God is an aspect of the one God, the Highest God, the Brahma.

Self-sacrifice is the keynote of the spiritual life of the Vedic sages. The Supreme Being sacrificed himself in creating the universe (Purusha Sooktha). They look upon the entire evolution of the Universe as the performance of a great sacrifice. The spirit of sacrifice, restraint and harmony through love and unity are the dominant factor of the cultural life of the Aaryans. One in many and unity in variety, is the message of Vedic India.

“Assemble, speak together, let your minds be all of one accordLet all priests utter the Mantras in a common way. Common be their assembly, common be their mind, so be their thought united.....United be the thoughts of all, that all may live happily; that ye may all happily reside.”

“Sangachhadvam, Samvaadadhwam
Samvo Manamsi Jaanataam
Devaa Bhaatan Yathaa Poorvam
Samjaanaanaa Upaasataam, Samaana Mantrah
Samiti Ssamaanee Samaanam Manah
Sacchitta Meshaam,
Samaanee Iha Aahuti, Ssamaanaani Hridayaan Va
Ssamaanamastu Manah, Yathaa Va Ssahasaati.”

CULTURE OF THE UPANISHADS

The Upanishads come under the Jnaana Kaanda of the Vedaas. Their number is given as 108 but the most important are the following ten on which Sri. Sankaraachaarya wrote his commentaries:—1. Isa (Vasya); 2. Kena; 3. Katha; 4. Prasna; 5. Mundaka; 6. Manddokya; 7. Taaittiriya; 8. Aitareya; 9. Chaandogya and 10. Brihadaaranyaka. The word Upanishad means an approach to the knowledge of the Reality, expounded in the books of the same.

The central work of the theme is to seek unity in the midst of diversity. “What is that by knowing which everything in the Universe is known.” The answer to it is found in the conception of God or Brahman (The Greatest) as the Ultimate Cause of the Universe. “From whom indeed these beings are born, through whom they live, and unto whom they return and merge in. Since the effect is not different from the cause, it is possible to know the Universe by knowing Brahman, as by knowing one lump of clay, all that is made of clay is known. For, the modification is but an effort of speech, a name, and the only reality in it is clay.” Two things should be noted here. The first is that the Universe is not considered to have come out of Zero or non-existence. The second thing is that the Universe is conceived as returning in the end to God, the source from which it sprang.

Thus even in the age of Upanishads, not only evolution, which is the watch-word of modern science, but also involution, i. e. the retrograde march of the Universe to its primal state, was wholeheartedly believed in. In the latter point, the Upanishads seem to have gone ahead of modern sciences. So, not only have they no ground for quarrels with sciences, but on the contrary, they welcome its contributions towards a better understanding of their ancient discoveries by the modern mind. The religion of the Upanishads is par excellence a-scientific religion. The appeal of the Upanishads is universal. They call upon every man and woman, in whatever station of life, to stand up and assert their Divine heritage. In this, they recognise no limits, geographical, racial or any other.

"They are the greatest unifying factor in the world for all time. The regeneration of Man the Brute into Man the God, is their ambitious programme. They only of all the religious literatures of the world, give the rationale of morality—why we should do good to others; because, we are all one."

The well-being of the modern world depends on a proper understanding of the Upanishadic teachings and on their sincere application to the practical problems of our daily life. Thus only can materialism, which is the common enemy of the world, be conquered and love instead of hate be our guiding principle.

The theory of evolution of the Universe given in the Aayurvedic Text is based upon the Upanishads. "From this very Aatman, which is identical with that (Brahman), the other is produced, from the Ether the Air, from Air the Fire, from the Fire the Water, from the Water the Earth." These elements combine in different proportions to produce all bodies and also minds. "Know the soul as the rider, the body as the chariot, the intellect as the charioteer and the Manas as the reins. The organs are called the horses, and the sense-objects the roads for them. The soul, joined to the body, organs and mind, is designated by the sage as the experiencer (Bhoktri). The organiser is higher than the objects, Manas, is higher than the objects, the Intellect is higher than the Manas, Mahat (Cosmic Intelligence or Hiranyagarbha) is higher than the Intellect, the unmanifested Avyakta (the Causal State of the Universe) is higher than Mahat, and the infinite being

(i. e. Purusha or Aatman) is higher than the unmanifested. There is nothing higher than the Purusha. That is the limit, the Supreme Goal.

AAYURVEDA IN THE VEDAAS

The word Aayurveda is not seen as such in the Vedaas but a good portion of the Veda is devoted to promotion of long life, prevention of diseases and to medical treatment. In fact, the foundations of Aayurveda may be said to be well and truly laid in the Vedaas. Aayurveda is recognised as an Upaveda or Branch Veda. The Aaryans lived a simple life and had cattle rearing and agriculture as their chief occupation. They were practically free from the business worries and the hurry-bury which characterises the professions of modern days. They therefore lived the full span of life of hundred years. Their prayers were all for good rains, bumper crops, bright sunshine, pure air, fat cows, strong and lustrous bodies and all-round prosperity. The value of sunlight as the promoter of health and destroyer of germs and diseases was recognised and also as a cure for jaundice and heart diseases—"HRID ROGAM MAMA SURYA HARIMAA-NANCHA NAASAYA." Similarly, you find in the Vedaas, references to Chemotherapy, Hydrotherapy, Thermal and Surgical treatment. There also names of midwives who flourished at that time, namely Cinevaali and Saraswathi in Atharva Veda. There is reference to Tridhaathus. Rudra was addressed as the Physician of Physicians. It would appear that physicians in those days were well paid.

BAUDDHA YUGA — THE BUDDHISTIC AGE

(1000 B. C. to 300 A. D.)

Buddha was born in the year 623 B. C. and began to preach his religion from 588. B. C. As it is necessary to study the condition of Hindustan, we have started this period from about 1,000 B. C and closed it with events which caused its decline at about 300 A. D.

The 5th century B. C. was marked by a struggle for supremacy which culminated in the complete ascendancy of Magadha. One by

one all the important States were absorbed in the growing kingdom of the 4th century B. C. The whole of Northern India excluding the Punjab and the Sindh, formed one united empire under the Nanda Kings of Patalipura

Chandra Gupta extended his dominions still further west up to Herat in Afghanistan. Gradually the Mauryan empire pushed its frontiers further south, and during the reign of Asoka (270-230B.C.) the great-grandson of Chandra Gupta, its southern boundary was fixed along the Pennar River near Nellore.

The name Aandhra first appears in Aitareya Brahmana. From the descriptions given therein, it would appear that the Aandhraas were a tribe of Aaryans who for some reason or other quarrelled with the other tribes and emigrated from the Aaryaavartha and settled themselves among the tribes in the south, in the Dandakaa-ranya in the Vindhya. There are descriptions of Aandhra Raashtra in Ramaayana and the Mahaabhaaratha. There are references to the Aandhraas and the Draavidaas in Charaka Samhita (Indriyasthaana—5.29). About the year 300 B. C. Magasthenes, the Greek Ambassador at the court of Chandragupta, the Mauryan Emperor, describes that the Aandhra Empire was only next to the Mauryan Empire. At that time, there were thirty forts, one lakh of infantry, two thousand horses and one thousand elephants with them. After the death of Asoka and the disruption of the Mauryan Empire, the Aandhra kings established themselves firmly and ruled over vast areas extending from the mouths of the Krishna and Godavari in the east, to the Arabian Sea on the west, and occupied all the country as far as the Magadha country. 30 Aandhra kings ruled for over 456 years during which period Buddhist pilgrims were very much encouraged.

The famous University of Amaraavati on the banks of the Krishna flourished during the time of Naagaarjuna, the Mahaayana Buddhist (1st Century B. C.). He is said to have lived at the University of Sri Sailam and at Nagaarjuna Konda, a hill in Guntur District, named after him. After the 3rd century A. D., the whole history of Hindustan was changed by successive invasions of the country by foreigners and the Aandhra Empire fell to pieces. The Greeks (from Bactria), the Parthians, the Saakaas, and the Kushanaas poured in millions into India and established supremacy in the west

and north-west. This is probably the period when the present editions of Charaka and Susruta were completed. There are references to the habits and customs of all these peoples in the texts.

The rest of India was divided into a number of small kingdoms. The political disintegration and foreign domination were perhaps the price that Hindustan had to pay for the peace propaganda of Asoka. After five hundred years of this chronic misery (200 B. C. to 300 A. D.) the Guptaas rose to power (320 A. D.) and again established a mighty empire.

VEDAANGAAS

(1,000 to 500 B. C.)

The Vedaangaas are the six limbs of the Vedaas, and are called the Shadangaas. They are:—1. Siksha (Orthography or pronunciation of the Vedaas), 2. Vyaakarana (Grammar), 3. Chhanda (Prosody), 4. Nirukta (Meaning of Vedaas), 5. Kalpa (Rules of Rituals) and 6. Jyotisha (Astronomy).

These were all formulated during the period, say 1,000 to 500 B. C. The science of geometry was developed in Hindustan even before this period. Triangular, rectangular and circular structures had to be constructed for the performance of Vedic sacrifices. The decimal system of calculations was known to the Aaryans, and this was copied by the Arabs and then by the Europeans. The calculation of time, of eclipses, comets, etc., were also known. The age of Paanini, the great Grammarian, has been fixed at about 750 B. C. This is a landmark in India's history.

PAANINI

ASHTADHAAYI—a grammatical work of PAANINI belonged to the Sootra period, i. e., about 750 B. C. Sanskrit was the spoken language of the people in those days. The cities of Naasik and Kaanchi, South of the Vindhya Hills, were mentioned in his work. We learn not only grammar but also about the condition of society and the habits of the people and many other important details regarding the state of Hindustan, from Panini's work and so this work serves as a landmark in the history of Hindustan. The

Sootra works on Medicine and on Philosophy may have been compiled about this period. The Sootra period is therefore one in which Indian talent exhibited itself at its highest. The Sootraas on Sexual Science (Kaama Sootra) by Vaatsyaayana and the Sootraas on Prosody by Pingala are also ascribed to this period. They studied the existing sciences so exhaustively that they left notes and indices on them, counting the number of words and even the letters contained in each treatise. For instance, RIG VEDA is stated to contain 1,017 Sootraas, 1,058 Richaas, 15, 36, 280 words and 4,320,000 letters. These show the interest that our ancients took in the acquisition of knowledge and in the preservation of the same for the use of the future generations. How are we to clear our debt to them except by the propagation of that knowledge for the benefit of humanity?

SOOTRAAS

The Sootraas are divided into three classes :—1. Sootraas relating to the sacrificial rituals, 2. The Grihya Sootraas relating to the duties of the householder, i.e., the Shodasa Karmaas or the 16 kinds of Vrataas or Samskaaraas that every man has to perform and 3. the Dharma Sootraas relating to the Laws of Conduct for the regulation of society.

Different sects of Aaryans had different Sootraas according to the Rishis to whose clan they belonged. The marriages in the families belonging to different Sootraas are to be performed according to the rules prescribed by their respective Rishis. For example, the Rig-Vedis follow the Aasvalaayana and Hiranyakeshi Sootraas. The Yajur Vedis follow Aapasthambha and Baudhaayana Sootraas, and the Kaatyayana Sootraas are followed by the Saama Vedis and so on. The date of Baudhaayana was approximately fixed at 500 B. C. and of Aapasthambha 300 B. C.

Gothra is a clan of Aaryans with a specific name. Each Gothra has what is called a Pravara i.e., the name of Rishis or Seers who are stated to be their ancestors. The lineage or Parampara is carefully preserved in the families from the earliest times. A person who pays his respects to his elders announces himself in these terms, "I invoke your blessings, venerable Sir, I am the Descendant of

Saamkhyaayana of the Gothra of Saamkhyaayana, follower of the Aapasthambha Sootra of the name of Lakshmipathi Sarma." This is how the identification of any person is made in Hindustan.

The Smrithis embody Hindu Dharma. They are based on the Vedaas. The Basic Smrithis are 18.

SANAATHANA DHARMA

Hinduism is not a religion in the sense in which we understand Christianity or Mohammedanism, which take their origin after the teachings of certain originators or inspirers. By way of contrast it was inevitable that a word should be found in order to describe the way of life and the religion of the ancient people of Hindustan. The name Hinduism has been therefore adopted and it should be retained as meaning all that which is understood by Hindu Dharma or the Hindu way of Life.

The Hindu Dharma is called the Sanaathana Dharma. The word Sanaathana means Eternal. Although the laws regulating the life of the society may change from time to time, according to the needs of the expanding society, the essential conduct or the content of Dharma is in all its parts eternally the same. Just as a person may grow and shed particles of the body and yet may retain its unity and individuality, Hinduism is like a statue cut out of a single rock, although it incorporates into it diverse races speaking diverse languages, united in common brotherhood having lived for thousands of years in a common motherland. Its Sanaathana (Eternal) character is not destroyed ; but is maintained by its adaptability and adaptation. Most of the religious institutions of to-day are founded on ideas which were alive and active in the Vedic times.

CULTURE OF THE SMRITHIS

These Smrithis are not mere Law Books. There is involved in the Smrithis much more than the civil and criminal laws and the rules of inheritance and the laws of marriage and family. Every detail of the individual is included. The King's duties in relation to the internal and external affairs of the country are included therein. It is difficult to conceive of anything bearing on the

conduct of any individual or of society as a whole that does not fall within the regulations attempted by the Smṛithis. Worship of Gods, ceremonies in commemoration of the dead, birth and death, pollutions, expiatory acts, sacrifices, customs and manners of daily life and behaviour are all included, indicating thereby their all-embracing character.

EVOLUTION THEORY

There is a very precise philosophy, individual and social, behind the scene of the Smṛithis. That philosophy is pulsating life, the manifestation of which is not all alike or in one grade. It sleeps in metal. It is awake in plants. It moves and knows in animals. It knows and knows that it knows in man. Increasing complexity of biological organisation runs through physical evolution. It culminates in man. Man is but the result of his past and present actions in all the four spheres of his existence, physical, mental, intellectual and spiritual. Where the previous life ended with the accumulated heritage of aptitudes and capacities, and each new life starts at the point, the process of the continuous ascent of man is pursued through the ages and in countless lives.

SOCIAL ORGANISATION

Social organisation had advanced to a feudal stage by the time of the Rīg—Veda. The Āryan community had divided itself into clans or names, each comprising several families with different family names. The functions of the Brahmin, the Kshatriya, the Vaisya and the Soodra are essential parts of a social organisation. Having regard to the nature of these functions, they are likened to the mouth, the arms, the thighs and the legs of the cosmic Puruṣa respectively—by the perfect co-operation and co-ordination of these functions does a society live as an efficient unit. Any of these functions failing, society must be thrown out of gear and its unity must be destroyed.

Men are different stages of evolution. They are of different types and are fit only for performing different duties. The Brahmin learns and teaches; he ministers to the spiritual needs of the people as a

priest, preceptor and preacher; he advises the sovereign, expounds and administers laws, and helps in framing and carrying out legislative policy. He is the custodian of the intellectual and spiritual heritage of the race. The Kshatriya governs and performs the executive functions of the state, protects and preserves order against external aggression and internal forces making for disorder and is the custodian of social power.

The Vaisya includes the agriculturist and the merchant, the manufacturer and the trader and all those who provide the sustenance of the race and is the custodian of its economic functions.

The Soodra is that portion of the population which being incapable of independent initiative on an adequate scale, merely assists in the discharge of essential functions by the contribution of manual labour. With opportunity for unimpeded growth, a man can reach to the full height of his stature.

The Germ Plasm travels from the ancestor to the descendant. There is thus a physical continuity of the race. The man is born again in his wife as the son. It is himself that is named the son. The intellectual and cultural heritage and traditions of the race have to be handed on from one generation to another. Such augmentations as each generation is able to make are secured by the recognition of the intellectual guardians of the race and by careful selection and preservation of the purity of the seed.

The advantage of a division of types and the assignment of different functions according to the type is that it leads to the abolition of conflict and the production of increasing efficiency through the specialized function for which individuals are prepared by the concentration of their individual aspirations (Varna)—their every sense of perception and sense of action—i. e., by their combination of eye and arm. Conflict is also abolished as between different generations of people, by the retirement of each generation in due time when the next generation is ready to take the place of the outgoing (Āsrama). The above Varnaāśramadharmā constituted the general theory of life for society and for the individual in Hindustan.

In every organism, there must be a co-ordination of energy, a sifting of the better; and the success of any social group depends upon the power of the leaders to distinguish the superior from the

inferior, to exercise a check upon the uncritical appetites of the group, a capacity which can only be gained by practising it on oneself with the consequent development of knowledge, experience, and character. In the absence of such leaders, there will be but the chaos of contradictory impulses or the brutal domination of the stronger.

VARNAASRAMA DHARMA

The Indo - Aryans of those days set upon themselves two duties namely:—

(1) That of elevating the lowest classes, some of whom were different also in the colour of the skin, by imparting to them special knowledge according to the capacity of each class and their utility to society. This is all called classified Varna Dharma;

(2) That of elevating the infant who is born without any knowledge of the world or of himself, stage by stage and finally of making him realize his own self—(Aatma Vidyaa). This is called the Aasrama Dharma. It has been said that caste is a unique and a puzzling institution of Hindustan, not to be found anywhere else in the world. The uniqueness of caste is undeniable, but it is rooted in intelligible psychology and was almost inevitable in the circumstances in which it arose. It started in ideas which are world-wide and have their counterparts in the modern world.

In order to escape from the logic of the fish, i. e., in order to prevent the weaker members of the community from being preyed upon by the stronger, the idea of the State (Varnaasrama Dharma) was introduced in the condition of the non-State. With opportunity for unimpeded growth, anyone may reach to the full height of his stature, i. e., become a Brahmin and attain salvation by doing the duty assigned to him. The idea was not survival of the fittest but survival and progress of the weakest. The Lower Grade is a stage of apprenticeship to the Higher Grade.

HYPERGAMEOUS MARRIAGES

The rules about the raising of the status of the issue of mixed caste by successive hypergameous (Anuloma Vivaaha) unions are to be found both in Manu and Yajnavalkya.

If successive marriages should raise the child to a higher status in five, six or seven generations, the caste of the parent has to be remembered or recorded and the result accordingly decided being maintained. This must have been very different and difficult and the domination of the field over the seed was definitely settled when we come to Manu.

ARTHASAASTHRA OF KAUTILYA

Penalties were levied upon those who disobeyed the rules of conduct laid down in the Smritis. The Arthasaasthra of Kautilya in which there are good grounds for assigning to the 4th Century B. C., the time of Emperor Chandragupta Maurya, throws much light on medical practice and regulations for public health and hygiene.

The State framed rules for the practice of physicians. They had to report to Government, cases of dangerous diseases. They were fined in case of deaths from such unreported diseases.

Error of treatment (Karmaaparaadha) causing death (Vipatti) was more heavily punished. A surgeon was to lose the limb which he caused a patient to lose by his mistaken operation.

CLASSES OF PRACTITIONERS

The medical profession was represented by the following classes of practitioners:— (1) The ordinary physicians (Bhishajah or Chikitsakah); (2) Specialists in the treatment of poisoning cases (Jaangalividah); (3) Specialists in Midwifery (Garbhavyaadhi Samsthaah and Soothikaa Chikitsakah); (4) The military surgeons who accompanied the Army with necessary appliances, instruments, oils and bandages (Chikitsakah Sastra - Yantraagada - Snehavastra - Hastah) together with nurses who carried the necessary food and beverages for the sick and the wounded (Striyaschaanapaanarakshinyah) and (5) veterinary surgeons (to treat the diseases of cattle, horses, elephants, etc.)

The towns were equipped with hospitals and medical stores furnished with sufficient quantities of medicines which could last for years and were constantly replaced or replenished with fresh

supplies (Naveena Anavam Sodhayet). In the king's household, the stock of medicines included those required for midwifery, while medical plants and herbs were grown in pots in hot houses. Indeed the State maintained special botanical gardens for the cultivation of medicinal plants.

Special measures were adopted against the epidemic outbreaks (Upanipaata Pratikaara). Physicians were sent about the town distributing medicines (Aushadhah Chikitsaah) while saints and ascetics were at work on the employment of religious remedies. The same measures were adopted in the case of cattle plague.

The danger from rats as carriers of infection was known and measures were taken to destroy the rats. Cats and mongooses were let loose, with a penalty to those who caught them. Poisoned food for rats was also widely distributed. Where the epidemic prevailed in virulent form, a rat - cess (Mooshika Kara) was imposed on citizens who were to trap a fixed number of rats per day. The Municipalities had a set of sanitary regulations in the interests of public health and hygiene. Throwing dirt (Paamsunyaasa) or causing mud and water to collect on the road, (Pankodaka Sannirodhi) were fined. The fine was doubled in the case of such obstruction on the King's Highways. Committing nuisance in places held sacred (Punyaasthaana), in reservoirs, temples and royal buildings was punished except in cases where such pollution was forced by medicine, diseases or fear. Throwing inside the city of dead bodies of animals, small or large, was fined. Corpses had to be carried along the prescribed roads to be burnt at prescribed places. Owners of houses were bound to keep their gutters clean for free passage of water.

JEEVAKA - BUDDHAA'S PHYSICIAN

The most famous physician of the Buddha's time, in the 6th Century B.C. was Jeevaka, who was called by the title "KOMARA. BHACHCHA" as a specialist in the treatment of children's diseases -- though the story of his life shows his extraordinary proficiency in general medicine and surgery.

A great advance was made in surgery. The most difficult operations were performed like those upon the skull and on the

abdomen to set right twisted and obstructed intestines. It may be assumed that the success of these surgical operations depended upon the use of antiseptics and anaesthetics.

AAYURVEDA IN THE SMRITHIS

By the time the Smrithis were compiled, the principles of Aayurveda were widely known and were incorporated in all departments of the State. The rules of conduct codified in the Smrithis and enunciated in the Samhitaas of Charaka and Susruta correspond so much that we feel that both derived their knowledge from a common source. Whereas Aayurvedasootraas were more or less exclusively intended for the educated classes, the Smrithis were intended for popularising this knowledge among the masses. Penalties were levied upon those who disobeyed the rules of conduct laid down in the Smrithis. There is respectful mention of Dhanvanthari in Manusmrithi. We give below a few examples of hygienic rules from Mausmrithi for the sake of comparison.

The beauty and the emphasis of the pithy sayings cannot be brought out in English translation. We shall however translate them as best as we can.

1. "Na Snaanamaacharet Bhuktva."
"Do not bathe after eating."
2. "Braahme Muhoorte Buddheta
Dharinaarthancha Anuchintayet."
"One should get up from bed in Brahma Muhoorta and think about Dharma and Artha."
3. "Na Bhuktamaatre Adheeta."
"One should not study immediately after meals."
(Yaavadaardrahastam.)
4. "Satyam Brooyaat, Priyam Brooyaat,
Na Brooyaat Satyamapriyam,
Priyamcha Naanritam Brooyaat
Esha Daarmah Sanaatanah."

"Tell the truth, tell what is pleasing. Do not tell falsehood even if it is pleasant. This is the eternal rule."

5. "Adbhirgaatraani Sudhyanti
Manah Satyena Sudhyati,
Vidyaatapobhyam Bhootaatmaa
Budhirjnaanani Sudhyati."

"The body is purified by water, and the mind is purified by truth. The Jivaatma (the soul) is purified by knowledge and Tapas. The Buddhi is purified by correct knowledge."

6. "Naaprishthah Kasyachid Brooyaaat
Na Chaanyayena Prichhatah.
(Compare Bhagavat Geeta.
Tad Vidhi Pranipaatenam Pari Prasnena Sevaya.)
"Never teach anybody anything without being questioned.
Never answer any unreasonable questions."

7. Na Jaatu Kaamah Kaamaanaam
Upa Bhogyena Saamyati,
Havishaa Krishna Vartmyeva
Bhooya Evabhivardhate"

"If you pour ghee over fire, the fire will never be quenched, but it will blaze more. Similarly you can never satisfy the Indriyaas by fulfilling their desires. (The best way to conquer them is to control them.)

8. "Indriyaanam Tu Sarveshaam
Yadyekam Charatindriyam
Tena Asyachharatah Pragnaah
Driteh Paadaadi Vodakam."

"Even if one Indriya is addicted to vicious habits, it is enough to ruin even a wise man, just like a water-bag with a small hole will not be capable of containing water."

9. "Naapsu Mootra Purishamva
Sthivanamva Cha Samutsrijet."

"One should not pass urine, stools and spit into water."

10. "Dooshyechaasya Satatam Yavasaannodakendhanam."
"Enemies poison the food of animals and men, water and fuel in the enemy's country, so that they may not be useful to them."

(Panthaanamudalam Chhaayaam Bhaktamyava
Samindhanam, Doosha yantyarayah.)

THE EPICS

The Epics were much older than the Puraanaas. The chief Epics of Hindustaan are the Raamaayana and the Mahaabhaaraatha. They are next in time and also in importance to the Vedaas. Though the exact text of the Vedic lore were denied to the Soodra, nothing of substance was denied to him. His growth in every department was unimpeded. The Raamaayana, the Mahabhaaraatha, the Bhagavath Geeta, the Puraanaas and all other valuable books, were open to the study of all. Even the unchanted Veda, which is verbally the same, may be listened to and understood by the uninitiated class. The position of well-instructed non-Aryans was always of high influence and they were also approached for the solution of problems relating to the conflicts of Dharma. The spirituality of all Bhakthaas, irrespective of their caste, was always recognised.

CULTURE OF THE RAAMAAYANA

The descendants of Ikshvaaku were all without exception, noted for their devotion to piety and to the welfare of their subjects. The country attained a high level of prosperity during the long reign of Dasaratha in particular.

The people had plentiful supply of all essential requirements of life, of horses and cattle and corn and wealth.

Vaalmiki says that there was none during his reign, who was atheistic or untruthful or slenderly read or illiterate.

"The capital itself was in every way a source of attraction. Its roads were spacious, well laid-out and regularly watered to keep down the dust. Everything was clean, the food eaten was pure and the water available was sweet as the juice of sugarcane. Agriculture and trade received special attention and protection. From various countries, merchants naturally flocked to take advantage of the conveniences offered, and the streets looked beautiful with well-arranged rows of shops."

MILITARY EQUIPMENT

There was a thoroughly equipped and trained army. There were great car-warriors by thousands, whose arrows sped with irresistible force, but who would never degrade themselves by striking a fugitive or in any other manner violating the rules of chivalry. Faithful and loyal because of their own sense of duty and honour, they were doubly attached to their king and country and deserving the kind and dignified treatment given to them.

The East is often described as having known and relished only despotic monarchy. The Raamaayana, however, presents an entirely different picture. For at every turn we find the ministers, learned men and the principal officers of the army consulting together and shaping the policy of the state.

On important occasions people from different parts of the land assembled and took part in the discussions. Free expression of opinions was allowed and mutual consultation and independent thinking were expected to take place before any one spoke out his views.

Education got so organized that each section of the society knew not merely the details of fulfilling its own special function but also the relative place of its contribution in the general scheme. It was also a part of the training to create the mental attitude needed to keep competition within specified and healthy limits. The work of the ruler and the leaders was thus to see that the proper kind of education was given to the different sections of society and also to help all individually and collectively to blossom forth and spread their fragrance from within their own particular spheres.

MANY-SIDED NATURE OF SACRIFICES (YAJNAAS)

Every sacrifice was an occasion for making all sections of society meet together dedicate their skill to the success of the function and receive adequate presents. It was more or less a "World's Fair" or a "Parliament of Religions" of ancient days. There are some sacrifices in which a powerful king, through friendship or conquest collected tribute from brother rulers who had hoarded wealth, brought it to a central place of his own choice and distributed it to experts in every department of activity according to his standard of justice and merit. Raama performed such a sacrifice; and as the Uttara Raama Charithra puts it it was the fight over the sanctified horse that created the opportunity for Raama to recognise his sons Lava and Kusa and take them to the palace. The best type of sacrifice was, of course, considered to be that in which the sacrificer spent not only all that he managed to collect by methods sanctioned in the Saasthraas but also the original wealth he had been enjoying and in which he started life afresh and struggled hard for his bare subsistence. The poverty which became the lot of a paramount Emperor at such a renunciation, was regarded as highly auspicious.

RE - DISTRIBUTION OF RICHES

Without Dakshina and presents, no sacrifice was thought complete and if wealth, power, long life, progeny and even Heaven, were the results the performer had in view for himself, food, kind treatment, honour, rewards for merit, chances to compete in the display of skill and a re-distribution of riches and political power were nonetheless benefits which sacrifices conferred upon society as a whole. In the sacrifice, for instance, which Dasaratha performed for being blessed with children, Vasishta took particular care to summon not merely the priests well-versed in the ceremonials but also "experienced car-makers, highly pious and aged people, servants to assist in the various functions, artists, carpenters, diggers, astrologers, artisans, dancers, conductors of theatres, as well as pure and learned persons, proficient in the numerous branches of study. Yagbha insists on collecting materials and knowledge from those who have them and distributing them to those who do not have them.

Many a poet of later years has drawn inspiration from the glorious history of Raama and has either translated this ancient work or produced original compositions giving elaborate treatment to particular episodes. Painters and sculptors have also been drawing their best materials from this sacred theme and in different parts of India, temples of Raama, containing his image in a heroic pose within the shrine or his story depicted in colours all over the walls, are found.

The ideals presented by the sage Valmiki have spread to every corner of the country; and even if many may not accept Raama as a deity to be worshipped or regard him as their chosen spiritual ideal, there is no doubt that his character as a hero and as a man of virtuous action and that of Sita as a model of a heroine, have been instrument in shaping the lives of many, who genuinely aspire after dharma.

THE MAHAABHAARATHA

The Mahaabhaaratha is the biggest of the world's epics. It contains 1,00,000 slokaas or verses.

Precepts culled from the epics are quoted by a Greek Envoy as early as the 2nd Century B. C.

The whole poem is known to have been recited in temples in far off Cambodia as early as the 6th Century A. D. In the next century, we find the Turks of Mongolia reading in their own idioms, the thrilling episodes like the Hidimbha Vadha. The work was translated into their vernacular by the people of Java before the end of the 10th Century.

*"Aasaan Maghasu Munayah Saasati
Prithveen Yudhishtire Nripatau,
Shaddvik Oanchadviyutah
Sake Kaulastasya Raajnah"*

The time of Yudhishtira's reign was compiled as 4404 years before the year 1957. The great Astronomer Varaahamihira in his book Brihat Sanhita, records as follows:—

Yudhishtira flourished at least 4404 years ago; the Saka era begins at 79 A. D. Therefore $1957 - 79 = 1878$. $1878 + 2526 = 4404$ before our time.

BHAARATA AND MAHABHAARATHA

At some time in its development, the epic contained 24,000 verses, but gradually by absorption of numerous Upaakhyaanaas or secondary tales and considerable mass of other literature, it attained its present bulk of 100,000 verses of prose equivalents. This process was practically completed in the 5th Century A. D.

DEMOCRATIC AND REPUBLICAN INSTITUTIONS

The great king of the Epic was usually a monarch who could boast of an illustrious pedigree and claim to rule by hereditary right. In a section of Aadi Parva, we have a reference to a ruler whom all people elected to the kingship, saying that he was a virtuous man.

The circle of advisers and councillors was sometimes enlarged by the admission of priests and even representatives of the lower orders of the people as the following extracts from the Saanti Parva seem to indicate: "I shall tell you (the King) what kinds of ministers should be appointed by you." Four Brahmins learned in the Vedaas and ready-witted, who have completed the period of study and discipline and are of pure conduct, and eight Kshatriyaas, all of whom shall have physical strength and be capable of wielding weapons, and one and twenty Vaisyaas, all of whom shall be rich, and three Soodraas, every one of whom should be humble and of pure conduct and devoted to his daily duties, and one man of the Soota caste, possessing a knowledge of the Puraanaas and eight principal virtues should be your Ministers." The royal advisers in the Epic did not hesitate to upbraid or reprove the King when he went wrong.

For purposes of self-defence and defeat of his enemies, the king had to maintain a standing army with a Senapati at its head. The army was sub-divided into regiments and battalions, styled Aneekanee, Chamoopritanaa, Vaahinee, etc. Among weapons, the most,

interesting are the Yantra or the Machine and Sataaghi of Hundred Killer which were often used as projectiles.

The fighting forces consisted not only of chariots, elephants, horses and infantry, but also according to some passages of the 12th book, of a navy, labourers, spies and local guides. Standards and flags bore an important part in a battle.

Though the four primary castes and mixed castes were social, the divisions had not yet come to be rigid as in later times. We have in a passage of the Saanti Parva (188—10) the bold statement that there is no distinction of castes. The whole of this Universe is divine, having emanated from Brahman. Created (equally) by the Supreme Spirit, men have, on account of their Karma (deed or profession) been divided into various castes.

STATUS OF WOMEN

Women were accorded a place of honour in the Epics and were allowed a considerable amount of freedom. "Women shall always be honoured, for when they are honoured the deities rejoice."

"Women shall not be slain." The noble sentiments about women are reflected in the tales of Saavitri, Sakuntala, Tapati, Damayanti and Sita than whom no more tender and delicate types of women are to be found.

The Epic heroines received a liberal education in their father's houses and developed into well-taught and clever disputants. Thus, a princess tells her husband in the Vana Parva how in days gone by, her father and her brothers received lessons on the Neeti of Brihaspati from an erudite Braahmana and she herself listened to all those learned discourses, while seated on her father's lap. In several Epic stories, we find maids choosing their own husbands and in a famous episode of the Vana Parva, a king asks his daughter to choose a husband and says that he will give her to the man of her choice.

Privacy of women was practised in certain families, but many of the epic tales bear witness to a freer life when women laid aside the veils and came out of the seclusion of their houses. This was specially the case at the time of Svyamvaraas or on the occasion of

a great national festival or sorrow. The characteristic traits of the women of the period and the place they occupied in society are clearly brought out in several Upakhyaanaas. In the story of Saavitri, we have the ideal wife wrestling with Yama, the God of death, for the life of her husband. The episode of Vidulaa bears testimony to the fierce unbending spirit of the true daughter of an aristocratic house, who exhorts her indolent son to "flare up like a torch of ebony wood, though it be but for a moment, but not to smoulder, like a fire chaff, just to prolong life."

THE LAW OF KARMA

The whole world is conceived as a perpetual process of creation and destruction filling eternity with an everlasting rhythm and and the entire scheme is placed under the Law of Karma, which provides that every individual shall reap the fruit of deeds performed in previous lives; "as the calf could recognise its mother among thousand kins, so the deeds of the past would not fail to find the doer." The operation of the Law might, however, be modified by the grace (Prasaada) of the Lord, the Ordainer (Isvara) combined with the Living Faith (Bhakthi) of the worshipper.

BHAKTHI

The Doctrine of Bhakthi is preached, among others, by the Bhaagavathaas or Paancharaatraas. They teach Bhakthi for Krishna, who is identified with Vishnu.

Their religious and philosophical views are expounded in the Bhagavad Geeta.

Rival sects also make their appearance, the most notable being the Pasupataas and Sooraas who lay stress on devotion to Siva (Pasupati) and Soorya (also called Mihira). The growth of these sects threatened the destruction of the solidarity of the Aryan community. Separatist tendencies of extreme sectarianism are, however, sought to be checked by the doctrine of Vishnu, the God of the Bhaagavathaas, which is identical with Siva the Deity of the Bhaagavathaas.

The new school of saints and seers lays stress on Aatma-Yajna (Sacrifice of Self) in place of the older Pasu Yajna (Sacrifice of Animals).

SRI KRISHNA AND ARJUNA

Sri Krishna, the human-cum-divine actor on the Mahaa-bhaaratha stage, is the pivot on which the whole epic revolves. The intervention of the divine in human affairs is an integral part of Hindu philosophy and religion. Only the elite know whether Sri Krishna is only human or divine as well. Whatever Bheeshma may say to prove the divinity of Sri Krishna, Duryodhana and Jayadratha can never perceive a spark of divinity in Sri Krishna. Thus whatever may be the reverses sustained, Yudhishtira and Arjuna can never doubt the greatness and divinity of Lord Krishna. Thus does the inexplicable law of the Universe confound the intellect of the proud and chasten the mind of the devoted. Right can never be defeated of its end even as wrong will never go unpunished. To test our constancy in the Lord, right suffers apparently more reverses, but there can be no doubt of the final victory of right over wrong. It is to teach these age-long truths that the happy and perfect combination of Arjuna with Sri Krishna, the ideal pupil and the perfect Master, has been worked out by the author of the Mahaabhaaratha. The moral teachings preached in the Bhagavad Geeta are true for all time and for all castes—whatever may be one's duty, so long as it is performed without malice and without an eye to selfish gain, it will stand by the doer for his lasting good. Exertion is always superior to destiny, for destiny is the result of previous exertion. In action born of the unbelief that destiny is all powerful, it is condemned unequivocally. The Karma that we reap now is the result of our past exertion. Present action can modify this Karma. We are not straws in the current of Karma but men, may be gods in the making. (Saanti Parva —CH. 36).

THE GOLDEN AGE

The age of the Mahaabhaaratha was the golden age of Hindu civilisation. The caste system had not yet bound itself in unbreakable

fetters. It stood more for one's vocation in life, suited to one's temperament and environment. The Braahamanaas were not only philosophers and preceptors, but were great warriors as well; and the Kshatriyaas were not only warriors, but great philosophers endowed with the highest spiritual insight. The welfare of their subjects was the constant care of kings, whether they were on the throne temporarily or permanently, in their own right of possession. The subjects loved their king whether he was in prosperity or in exile. The land was over-flowing with riches and honey; and even at the end of great wars, no one heard of famines, much less of punitive taxes or military occupations. In that age, art and services flourished as never before; prosperity and contentment were writ large on every face and every square inch of the land.

From the point of view of philosophy, it was an age of consolidation rather than invention. The intellectual Samkhya was developed hand in hand with practical Yoga. Sri Krishna was the greatest of Yogins. The Darsanaas were in their embryo and had not yet developed as distinctive schools. All were Meemaamsakaas in that they obeyed implicitly the injunctions of the Vedaas in regard to their daily practices and the performance of sacrifice. But the philosophical development of the Meemaamsaa system was a matter of later development. Nyaya flourished as a necessary equipment for all studies and speculations. The general principles of Vedaanta as taught in the principal Upanishads, held the field. Vedaanta was single and undivided in its scope and the Absolute was called Brahman, Vishnu or Siva, the three not being mutually exclusive or contradictory. Siva and Vishnu are praised equally, each with a thousand names. Sri Krishna is the highest Lord even as Siva's Paasupataastra is the mightiest weapon. The outlook is synthetical rather than competing in omnipotence with one another. It was an age of belief in God and faith in the scriptures, each one performing his allotted task not only for his own sake but for the sake of the glory and uplift of his community and nation as a whole.

The Raamaayana and the Mahaabhaarata continue even to-day to be the bed-rock on which Hindu ethics and moral ideas and ideals are based and practised. To a Hindu, his daily life, from morning till evening, is one that cannot be divorced from the observances of religious acts and duties. Religion and daily life are

so inextricably interwoven with each other that herein lies the special feature of Hinduism that marks it from the standards according to which each Hindu should fasten his own conduct in daily life. And it is because of this peculiar feature of Hinduism that it is well-nigh impossible to give any scientific definition of Hinduism in cut and dry formulas. However, Sri P. S. Sivaswami Iyer has, in his Kamala Lectures, brought out admirably the leading features of Hinduism in the following words:—"The doctrine of Karma, with the allied doctrine of re-birth, is one of the essential tenets of Hinduism. It is deeply rooted in the minds of all Hindus and has permeated Hindu philosophy, literature and art. This doctrine, which teaches everyone that he must win his salvation by his own work, is a much stronger incentive to the spirit of manly self-reliance and self-improvement than the doctrines of vicarious atonement or redemption. Hinduism dwells persistently upon the importance of self-discipline and self-control for the regulation and co-ordination of human impulses and instincts, for the perfection of character."

AHIMSAA AND THE SPIRIT OF TOLERATION

In no occidental religion has the doctrine of Ahimsaa been proclaimed as one of universal scope or assigned such an important place in the ethical scheme. Hinduism has always been characterised by a spirit of toleration and has hardly ever indulged in the persecution of the followers of other religions. It has never put forward a claim to a monopoly of truth. It is the glory of Hinduism that it never interfered with or discouraged freedom of thought, speculation or opinion, so long as they conformed to the rules of society in matters of external conduct. In dealing with mutual relations among members of society, Hinduism has always laid stress upon obligations rather than rights. These are the ideals preached in the Mahaabhaaratha and these continue to be the governing facts in the life of every true Hindu even to-day.

AAAYURVEDA IN THE EPICS

There are many references to Aayurveda in the Raamaayana. The story of Sushena Vida and Sanjivani is well-known.

There is mention of Susruta, son of Viswaamitra in the Mahaabhaaratha. The terms of Aayurveda, Astaanga Chikitsa and Krishnatreya Chikitsa, were used to denote medical and surgical treatment. The classification of the subject into medicine, surgery and toxicology was already made. Specialists in medicine and surgery were known to exist even at the time of the Mahaabhaaratha.

*"Aayurveda Vidastasmaat Tridhaatum
Maam Prachakshate".*

(Saanti Moksha - 137)

*"Kvachitte Kusala Vaidyaa
Ashtaange Cha Chikitsite".*

(Sabha - 35)

*"Devarshi charitam Gaargyah
Krishna Atreyaschikitsite".*

(Saanti Moksha - 137)

AAAYURVEDA IN BAUDDHA YUGA

Aayurveda was encouraged by the Buddhist monks who studied it as a compulsory subject. Asoka established many dispensaries for men and cattle throughout his empire. There is a tradition that Asoka prohibited dissections on account of the principles of Ahimsaa, but I believe that this cannot be true, because Buddhists were not prohibited from meat eating.

The great chemist, Naagaarjuna, belongs to this period. The editions of Charaka and Susruta Samhitaas, now available must have been compiled during this period.

On the whole, Aayurveda was at its highest eminence both in theoretical knowledge and in practical application throughout the length and breadth of the land.

THE AGE OF PURAANAAS

(Puraanika Yuga)

300 A. D. to 1,000 A. D.

The 4th Century A. D. may be regarded as a turning point in the history of Hindustan. Since that date, we find a gradual

dominance of the Vedic Religion and steady decline of Buddhism and Jainism. The sectarianism among the Hindus became less rigid. Saiva, Vaishnava, Saaktaa and many other minor religious sects were reconciled to each other, and evolved into a synthetic Hindusim. The fortune of the religions depended more or less on the patronage of royal families.

The Jains and Buddhists gradually lost royal patronage. The people also turned towards the Vedic religion. The Taantrikaas prevailed publicly and secretly with all their characteristics of mystic, magical beliefs and degraded erotic practices, extreme veneration for the Guru and lax morality leading to gross indecency.

At the same time, the worship of images of God, with elaborate rituals and erections of large temples became a characteristic feature of this period. Finally, when Buddha was worshipped as an Avataara of Vishnu, Buddhism lost its ground and was ultimately completely effaced from Hindustan as a separate sect. During all this period, consolidation of Hinduism was taking place by the activity of the orthodox leaders, who boldly challenged the heterodox creeds of Buddhism and Jainism.

THE DARSANAAS

The Hindus first codified and systematised their philosophical and religious doctrines and put them on the necessary basis of logic and reason. In the attempt, they incorporated into their culture all those elements of the heterodox systems which appealed to them as the basis of the wide-spread popularity of those systems. During this period, covered by 400 to 200 B. C., the six systems of philosophy, called the Darsanaas, which were already existing in diverse places, were formulated and recognised as different schools of thought. The Nyaya, Vaiseshika, Saankhya, Yoga, Poorvameemaamsa and Vedaanta will be dealt with in their philosophical background.

THE PURAANAAS

The popularisation of the Vedic religion and Hindu philosophy was hastened through the publication of a number of Puraanaas and the epics of the Raamaayana and the Mahaabhaaratha.

The Puraanaas are 18 and the Upapuraanaas or auxiliary Puraanaas are 11 in addition. The object of the Puraanaas is to represent natural descriptions from the Vedaas and some historical features in the form of stories. The Vedaas were by that time beyond the reach of the masses. The socio-literature of the previous age was very concise whereas the treatment of the same subject in the Puraanaas was elaborate and profusely illustrated. They were, to the people of those days, like the modern cinemas.

The compilation of the Puraanaas was attributed to Vyaasa, the author of the Mahaabhaaratha. The 18 Puraanaas are :—

1. Brahma Puraanaa	...	10,000	Slokaas
2. Padma Puraanaa	...	55,000	„
3. Vaishnava Puraanaa	...	23,000	„
4. Saiva Puraanaa	...	24,000	„
5. Bhaagavatha Puraanaa	...	18,000	„
6. Naaradiya Puraanaa	...	15,000	„
7. Maarkandeya Puraanaa	...	9,000	„
8. Aagneya Puraanaa	...	15,400	„
9. Bhavishyat Puraanaa	...	18,500	„
10. Brahma Vaivarta Puraanaa...	...	18,000	„
11. Linga Puraana	...	11,000	„
12. Vaaraaha Puraanaa	...	24,000	„
13. Skaanda Puraanaa	...	18,000	„
14. Vaamana Puraanaa	...	10,000	„
15. Koorma Puraanaa	...	17,000	„
16. Matsya Puraanaa	...	19,000	„
17. Garuda Puraanaa	...	19,000	„
18. Brahmaanda Puraanaa	...	12,000	„

Modern science is unable to express how the senses and the mind could have emerged out of matter. Nor is it able to state how matter could be self - active or purposeful. The Puraanaas tell us vividly how the primary evolution emerged from Prakriti or primordial matter, under the control of Easwara and how the Indriyaas or senses on one side and the Panchabhoothaas on the other side, are evolved respectively from the Saatwika and Thaamasika aspects of Prakriti.

HINDU CALCULATION OF TIME

The Puraanaas also describe the historic evolution of human destiny in the course of the unfoldment of time. The four Yugaas (periods) are Krita, Tretaa, Dvaapara and Kali.

The Kaliyuga consists of 4,32,000 years. Dvaaparayuga is twice, Tretaayuga thrice and Krita Yuga four times, the duration of Kaliyuga. All the four Yugaas put together form a Mahaayuga. Seventy-one Mahayugaas form a Manvantara. There are 14 Manvantaraas. They are classified as follows:—

- | | |
|-----------------|------------------------------|
| 1. Svaayambhuva | 8. Saavarni |
| 2. Svaaroehisa | 9. Daksha Saavarni |
| 3. Uttama | 10. Brahmasaavarni |
| 4. Taamasa | 11. Dhaaima Saavarni |
| 5. Raivata | 12. Rudra Saavarni |
| 6. Chaakshusha | 13. Rauchya - Daiva Saavarni |
| 7. Vaivasvata | 14. Indra Saavarni |

There are also Sandhis or twilight periods amounting to six Mahaayugaas. Thus $14 \times 71 + 6$, i. e., one thousand Mahaayugaas form one day of Brahma and his night consists of one thousand Mahayugaas. In this way, his age of one hundred years is the age of the world. All the worlds will be destroyed when his life period ends. Then, the involution follows the reverse order and all the manifestation of Prakriti will be re-absorbed into it, which itself is re-absorbed in the Easwara, who is one with the Absolute.

We are now in the first part (Prathama Paada) of Kaliyuga of the Vaivasvata Manvantara, which by calculation comes to about two hundred million years, which surprisingly corresponds with the calculation of modern geologists.

HISTORY IN THE PURAANAAS

We find an account of the royal dynasties of Hindustan in twelve Puraanaas. It is necessary to test the stories there in the light of the archaeological and epigraphical findings. The Pura-

naas refer to three great dynasties after the Mahaabhaaratha war, viz :—the line of the Purus, the line of the Ikshvaakus and the line of the Magadha Kings. The geography of the Puraanas is still not understood.

SANKARAACHAARYA

The downfall of Buddhism and Jainism was expedited by the work of the great philosopher and scholar of Malabar, Sankaraachaarya. He was born at a village named Kaaladi in the 7th Century A. D. The condition of Hindustan at the time of his advent is described in Sankara Digvijaya by Aanandagiri as follows:—

*Kechichandraparaah
Pare kujaparaah Kechittu Mandasritaah
Kechitkaala Paraah
Pare Pitriparaah Kechittu Nagesagaah
Kechittarkshya Parascha
Siddhanichayam Sevanti Kechiddhiya
Kechidgandharva Saadhyaadeen
Bhootavetaalagaah Paree
Evam Naanaaprabhedaanaam
Nrinaam Vrittiryahepsitam
Kechit Svavrittim
Vedaarthair Pratipaadyaam Samoochire
Anyonya Matsaragrastaa
Parasparajayaishinaa
Nijechhaakritimangeshu
Dhaarayanti Rushaanvitaah.*

Aanandagiri mentions the numerous sects that sprang into existence and inculcated the worship of all kinds of Gods, from the noblest and highest to the most repulsive deities, taking delight in drunken orgies and grotesque rites.*

The leaders of rival sects cited the authority of the Vedaas in support of their doctrines and practices and wished to overpower one

* Refer Mediaeval India by Eswari Prasad—P.XIV.

another. Some worshipped Siva, while others worshipped fire, Ganesa, Sun, Bhairava and Kaartikeya, the God of Love, the God of Death, Varuna, Sky, Water, Ghosts, etc., and acted according to their own inclinations. With a boldness and vigour which is unrivalled in the history of religion, the great master, Sankaraachaarya, made his triumphal progress from city to city, worsting his opponents in debate by means of his almost super-human powers of expression and argument. The Advaita doctrine was firmly established, and the Buddhist monks and scholars, chased by Sankara's incisive logic, sought refuge in the secluded regions of Magadha and certain other parts of Northern India. A great reform was accomplished and the land was purged of the grosser forms of worship.

AAYURVEDA IN THE PAURANIKA YUGA

The progress of Aayurveda was steady in the Pauranika Yuga.

1. Aayurveda was taught as a compulsory subject along with the studies of the Vedaas and the Saasthraas. Aayurvedic literature increased with the growth of Sanskrit and allied languages. Many commentaries on Charaka and Susruta were attempted and the Puraanaas propagated the study of Aayurveda as one of their themes.

2. The development of Aagama literature and the construction of temples on a large scale created a department of priesthood, who considered the study of Aayurveda and distribution of medicines as a part of their duties.

3. On the secular side, Kaamasaasthra contributed its share to the teaching of eugenics in Aayurveda, both on the preventive and the curative sides.

4. The State provided for the punishment of those who disobeyed the rules of good conduct prescribed in Aayurveda and suitable laws of public health were enacted and duly administered through the Magistracy.

Individual care was bestowed on the study of the eight departments of Aayurveda (Ashtaanga Chikilsa). The Ashtaanga Samgraha of Vriddha Vaagbhata and the Ashtaanga Vaidya of Junior Vaagbhata were both compiled during this period. Some Aayurvedic

texts were taken by the Musalmaans to Arabia and were translated under the patronage of the Khalifaas in the 7th Century A. D. and this became the source of knowledge for the European nations.

Thus the practice of Aayurveda was of a high standard and was patronised by the Governments not only in Hindustan, but also in foreign countries. Its influence spread during this period to the whole world literally, from China to Rome. One hundred and two hospitals (Aarogya Saalaas) were built in different provinces of Cambodia (Kamboja) and medicines were supplied free to these hospitals from the royal stores under the rule of Jai Varman VII (1181 A. D.)

In many of the Puraanaas such as Skaanda, Nandi, Agni, the benefits that were derived by one who establishes free dispensaries were described in high terms.

Matsya Puraanaa gives details for the selection of the soil, for building houses, the rules of hygiene, for construction of houses, gardens, swimming pools, and playgrounds. In Garuda Puraanaa, Pinda Brahmaanda Nyaaya is fully described and also the diseases due to committing certain sins.

It is during this period that Siddha Literature developed. Rasa Saastra (chemistry) was divided into its three branches viz., Kshema Vidya (alchemy), Rasa Vidya (metallic chemistry of medicine) and Dhaatu Vidya (industrial chemistry).

ISLAMIC CULTURE

(First Invasion By Arabs).

(636 - 637 A. D.)

The first Muslim invaders of Hindustan were the Arabs, who issued out of their desert homes after the death of Muhammed the great Prophet, to spread their doctrine throughout the world. The zeal for their faith enabled them to make themselves masters of Syria, Palestine and Egypt and Persia within 20 years. The stories of the fabulous wealth and of idolatry of Hindustan kindled their religious enthusiasm and political ambition. Their first expedition was to pillage the coasts of India. The Arabs were convinced that it was impossible to suppress the faith of the conquered people. The temples were ravaged and the treasures looted, but owing to the

well - known infertility of the soil of Sindh, the conquest became a burden to their Khilafat, although from the political point of view, the conquest of the Muslims and their culture was profound and far - reaching.

When the Arabs came to Hindustan, they were astonished at the superiority of the civilisation, which they found in this country. The sublimity of Hindu philosophical ideas and the richness and versatility of Hindu intellect were a strange revelation to them. The cardinal doctrine of Muslim theology, that there is one God, was already known to the Hindu saints and philosophers, and they found that, in the nobler arts, which enhanced the dignity of man, the Hindus far excelled them. The Indian musician, the mason, and the painter were as much admired by the Arabs as the philosophers and the men of learning.

Tabari writes that Khalifa Haroon once sent for an Indian physician to cure him of an obstinate and painful disease. The physician succeeded in restoring his patient to health and was allowed to return to Hindustan in safety.

A great many of the elements of Arabian culture, which afterwards had such a marvellous effect upon European civilisation, were borrowed from India. Arab scholars sat at the feet of the Buddhist monks and Braahmin pundits to learn philosophy, astronomy, mathematics, chemistry and other subjects of study. The court at Baghdad extended its patronage to Indian scholarship and during the Khalifat of Mansur (753-774 A. D.), Arab scholars who went from Hindustan to Baghdad, carried with them two books, the *Brahma Siddhaantha* of Brahmagupta and his *Khanda-Khadyaka*. These works were translated by Alfazaaree into Arabic with the help of Hindu scholars. It was from them that the Arabs learnt first the principles of scientific astronomy. Religious bigotry did not stand in the way of adopting Hindu culture and the Arabs freely borrowed what they found useful to them. They learnt from the Hindus the numerical figures and for this reason they called them the *Hindasaas*.

During the Khalifat of Haroon Al Rachid (786-808 A. D.), they sent scholars to Hindustan to study medicine, astrology, pharmacology and other sciences. (Al Biruni translated by Sachau, Introduction P. xxx). They invited Hindu scholars to Baghdad and

appointed them to translate from Sanskrit into Arabic works on medicine, philosophy, toxicology, astrology and other subjects. But it must be admitted that the Muslims soon secularised the learning they borrowed from Hindustan and presented it to the European world in a new garb, which was perhaps more acceptable to the European mind. When the Khilafat of Baghdad lost its importance after the extinction of the Abbaasid Dynasty at the hands of Halaagoo, the Arab Governors of Sindh became particularly independent. The cultural connection was broken, and the Arabian scholars, no longer in contact with the Hindu savants, turned to the study of Hellenic arts, literature, philosophy and sciences. There is ample reason to endorse Havel's view that it was Hindustan and not Greece, that taught Islam in the impressionable years of its youth, formed its philosophy and esoteric religious ideals and inspired its most characteristic expressions in literature, art and architecture. (Havell's 'Aaryan Rule in India', page - 256)

THE SULTAANS OF DELHI

The Muslim power was first permanently established in India by the Turks at the end of the twelfth century A. D. The Turkish sultans of Delhi ultimately conquered the whole of India.

The Mughal rule lasted for nearly two hundred years after which their empire broke up into a number of independent states.

The Hindu rule was not altogether extinguished during the Muslim domination. The flourishing kingdom of Vijayanagar in South India and the mighty empire of the Marattaas in the Deccan kept alive Hindu power and authority. In Northern India, the Rajputs maintained their independence for a fairly long period and never lost their internal autonomy.

Lastly, we may refer to the Sikhs. Originally, a religious sect founded by Naanak, the Sikhs rose to great military power towards the end of the Mughal rule. They established political authority over the Punjab and Kashmir areas at the beginning of the nineteenth century. By the middle of the century their power was thoroughly crushed by the British.

The defeat of the Marattaas in 1818 and of the Sikhs in 1849 completed the supremacy of the British in India. The Sepoy Mutiny

of 1857 was the last organised effort of Indians to throw off British yoke. With the suppression of that revolt the British authority in India was established on a secure foundation.

RELIGIOUS PREACHINGS OF ISLAAM

Islaam is a religion which contributed considerably to the progress of the world and its civilisation. It preaches continuous remembrance of God and His ideal, and it resembles some of our Hindu ideals.

The downfall of Islaamic kingdoms in modern times is due to its fall from the standards set in clear terms in the Holy Quran. Barbarism, which occasionally marred the greatness of the culture of Islaam, was due rather to individuals than to its tenets.

The acquisition of knowledge is essential in a Muslim and it is the corner-stone on which the whole Islaamic religion rests, because this religion is meant to emphasize the fact that there is only one God. The Holy Book says that man was made to worship this one God and that this is his only function in life (51 : 56). Man's sole duty is to transform himself into a perfect slave of God. To attain this state, that is to say, for man to concentrate his whole soul on God throughout his life, man has first to understand God to the best of his capacity, and it is quite clear that man's progress according to Islaam, must depend upon how far he has approximated his knowledge of God to the absolute truth about God.

The Quran describes Allah (God), as the first, the last, the hidden and the manifest, and says that whichever way you turn, you see His face and that He is with you wherever you are.

*"Oh ! you who believe,
let not your wealth or
your children divert you
from the remembrance of Allah !"*

(Quran—63-9)

A person should be God-intoxicated. "When my servant practises My Dhikr (remembrance) and his lips move for My sake, I am with him at the time; I am the companion of one who remembers Me." "One who remains engaged in My Dhikr, without troubling

Me with requests, I give him more than the man who asks Me." (Hadis-i-Qudsi.)

*"Ananyaaschintayanto Maam
Ye Janaah Paryupaasate
Tesdaam Nityaabhiyuktaanaam
Yogakshemam Vahaamyaham."*

(Bhagavad Geeta IX—22)

"I look after and carry on the welfare and prosperity of those people, who, not being mindful of anyone else, think of Me and worship Me, those whose attention is thus always directed to Me."

Although God's essence is unknowable, yet man is to concentrate his whole soul into an attempt to understand him through his attributes with the aid of knowledge. The acquisition of knowledge is necessary to transmute man into a complete slave of Allah.

Thus it will be seen that Islaam preaches continuous remembrance of God and reliance on God as its ideal. It is Advaita philosophy of Vaishnava type (Visishtadvaita) where intense devotion to God (the Bhakti) and Prapatti (absolute surrender of self to Him) are essential. The Bhaktimaarga is in Islaam as in Hinduism, a stepping stone to Jnaanamaarga or Raajayoga as it is usually called. This Jnaanamaarga consists in understanding the unknowable God with the aid of knowledge.

As knowledge and science advance and progress, man begins to realize the omnipotence and the power of God and his own helplessness. The outstanding achievement of twentieth century physics is the recognition that we are not yet in 'contact with the ultimate reality. If the scientist believes that man can ever come into contact with reality through his senses and mind, then, of course, he is sadly mistaken, a fact which the great eastern sages and prophets realized long ago. Said the Quran (over 1350 years ago), "And with Him are the keys of the invisible. None but He knoweth them. And He knoweth what is in the land and the sea. Not a leaf falleth but He knoweth it, not a grain amid the darkness of the earth, naught of wet or dry, but (it is noted) in a clear record."

(Quran—VI—69.)

THE VALUE OF PRAYERS

Muslims believe in Mantra Yoga, the mystic power of words in helping a devotee to secure salvation by trust and faith in God.

"In Islaam as in every other great religion, there is provision for the spiritual development of all sorts and conditions of men and women, from the Bedouin to the college professor, from the sinner to the saint. There is a minimum requirement fixed in the Islaamic religion before a man can be regarded as a true Muslim:—1. he must make the declaration that there is no God but Allah and that Mahammed is His Apostle; 2. pray at five fixed intervals of time during the day and night; 3. fast during the month of Ramzaan every year from sunrise to sunset; 4. contribute one fortieth of his income for the benefit of the poor and 5. make the Haj pilgrimage in his lifetime. Besides these five obligations, the Holy Quran contains throughout its pages, instructions for those who wish to come into contact with Allah. All the Muslim compulsory prayers are fixed and are the same as those performed by the Holy Prophet. These prayers were taught to the Prophet by Allah himself through the Angel Gabriel Ruhul Ameen of the Quran. (26-292-196).

The prayers have to be uttered in Arabic in the same form and accent as Allah himself taught.

The Islaamic formula, "There is no God but Allah and Mahammed is the Messenger of Allah" gives the key to the whole religion. The first portion contains a negation and an affirmation, the denial being that the attributes of Allah can never be ascribed to a created being, and the affirmation that the attributes of Allah belong to and are appropriate only to Allah. An idolator, who worships an idol, is not a sinner if he regards the idol as the possessor of certain attributes, but he commits sin if he claims that certain attributes represented by the features and the pose of the idol are the attributes of God.

THE USE OF JAPA IN YOGA

The slow, quiet recital of the name of Allah is necessary to strip one's mind of all mental images and to induce that love for Allah which will suddenly transport him from wordly consciousness

to mystic consciousness. The journey must begin with the brain empty, that is to say, from nothing.

ASAMPRAJNAATHA SAMAADHI

The Muslim devotees believe like the Hindus in the power of Yoga (Chitta Vritti Nirodha) in helping to realise the ultimate Reality (Brahman) and in Asamprajnaata Samadhi or the State of Absorption of the Mind when Kaivalya is obtained as in Paataanjala Yoga.

Prayers have three veils, whereof the first is prayer uttered only by the tongue; the second is when the mind, by hard endeavour and by firmest resolve, reaches a point at which, being untroubled by evil suggestions, it is able to concentrate itself in divine matters; and the third veil is when the mind can with difficulty be diverted from dwelling on divine matters. But the marrow of prayer is seen when He, who is invoked by prayer, takes possession of the mind of him who prays, and the mind of the latter is absorbed in God whom he addresses, his prayers ceasing and no self-consciousness abiding in him, even to that extent that a mere thought about his prayers appears to him a veil and a hindrance. This State is called "absorption" by the doctors of mystical lore. When a man is so utterly absorbed that he perceives nothing of his bodily members, nothing of what is passing without, nothing of what occurs to his mind, yea, when he is, as it were, absent from all these things, journeying first to his Lord, then he is in his Lord.

SUFISM

Sufism is a combination of Hindu and Islaamic faiths prevalent more particularly in Sindh. The Sufistic doctrine is that "God is the only being and that he is the only real agent. The Cause of Causes is one God, there is none other, and what pleaseth him shall come to pass."

You go to a Sufi saint, be there for some time and though nothing appears to have happened, you return somewhat changed. Something occurs between the two hearts, behind the conscious part of your self. Hindus and Muslims approached the Sufi saints

without any distinction of caste and religion. Often in gathering round a saint, it is seen that while a question is asked by one, the saint's reply solves the difficulties of others; and that the other is noticed to have come quite casually.*

Although the Islaamic religion was introduced into Hindustan from outside through Muslim invasions, it was only a revival of the monotheistic doctrines that originally belonged to Hindustan and formed the very core of the Upanishad teachings.

"Ekam Sat, Vipraah Bahudhaa Vadanti."

"The truth is one—only the sages express it differently."

SIKHISM

The Sikh religion is professed to-day by nearly four million persons. There is hardly any part of the world where a Sikh is not to be found. Sikhism was founded conjointly by 10 Gurus. At the close of the 17th century, it assumed its final shape by the creation of the Khaalsaa by Guru Govind Singh, the tenth and the last Guru.

Naanak, the first Guru, was born in 1469 at Nankanana Sahib near Lahore. He was a divinely inspired personality and was madly in love with the Creator. He endeavoured to purge Hinduism and Islaam of wrong practices and superstitions.

He tried to emphasise that mere forms and rituals divided people and made them quarrel with one another. He attached supreme importance to the oneness of God and Brotherhood of Man and to the remembrance of and devotion to the Lord. He did not observe any distinction between man and man and between man and woman and attempted to achieve the unity of all through the service of humanity. He was loved and admired by persons of all faiths and sects and had followers among the Hindus and the Muslims alike. He believed in the dignity and value of a householder. During the last part of his life, he settled in

* I have seen this happen when people go to visit Sri Ramana Maharshi in Thiruvannaamalai. A. L.

Kartarpur as a peasant and a preceptor and taught a pragmatic religion in a practical manner.

Guru Nanak's successor was Guru Arjun and his successor was Amar Das, who introduced a new institution called the Langar or common kitchen to demolish the caste system and to establish practical equality among his disciples, rich and poor, high and low. He also abolished the parda or seclusion of women.

The fifth Guru, Guru Arjun Das completed the temple and the Tank of Immortality in Amritsar. He collected the writings of the earlier Gurus and other saints, both Hindus and Muslims, of the high and low castes and compiled the Holy Granth, the Holy Book of the Sikhs. These activities of Guru Arjun Das roused jealousy in the minds of the Moghul rulers and Emperor Jahangir had him captured and made him suffer inhuman tortures. The Guru bore them with unparalleled fortitude and dignity in perfect resignation to the will of God. Guru Arjun Das's successor was not merely a religious teacher, but he also became a great military leader owing to the hostile attitude of the rulers and the martyrdom of the last Guru. The bitterness between the Mughal rulers and the Sikhs thus went on increasing and the ninth Guru, Guru Tej Bahadur, had to offer himself as a sacrifice to stem the tide of political tyrannical oppressions. He was offered by Aurangzeb the alternative of conversion or death. He chose the latter and suffered martyrdom to defend the liberty of conscience. This stirred the people and created a feeling of indignation in the minds of non-Muslims in the population.

Guru Govind Singh, the tenth and the last of the Gurus, sacrificed his all—his father, sons and himself—to make his followers great; and on the basis of equality, sacrifice, devotion, fearlessness, service and faith in the Oneness of God, he built a new human ideal.

"This new type of man was neither a religious recluse nor an avaricious worldly man, neither a believer in the Doctrine of Ahimsa (non-injury) nor a follower of the Bismarckian doctrine of blood and iron, but one who was a remarkable amalgum of the saint and the man of the world who lived in the world and was yet out of it; who was engaged in self-realisation but at the same time lived his life for others who did not shun worldly possessions or

relations, but was ever ready to sacrifice them all. He was gentle, God-fearing and honourable on the one hand and brave, fierce and ruthless towards the enemies of religion and humanity on the other. He repeated the name of the Lord on his iron rosary with one hand and killed the tyrants and opposers by his sword with the other hand. Even at the time of fighting, he kept shouting Sat Sri Akal (God is True.)"

Guru Govind Singh died at Nander (Hazoor Sahib) near Hyderabad (Dn.) in 1709 ending the remarkable line of spiritual preceptors and making the Panth (the community) itself the final arbiter in all matters and the Holy Granth the guide and preceptor of the Sikhs.

ZOROASTRIANISM

The religion of the Paarsis is called Zoroastrianism. There are roughly one lakh of Paarsis living in Hindustan today. Originally, the Paarsis belonged to the Aryan family. They worshipped Soma, Soorya, Yama, Mitra as did the Hindu Aryans: Karma Kaanda and the chapter on Varnya Dharma were common to both of them. There is Upanayana Samskaara for men as well as women among them. In the place of Sikhaa (hair), Mekhalaa (waistband) and Yajnopaveeta (sacred thread), the Paarsis use the topi, waistband (Kushti) and the sacred shirt (Sadrah.)

ZARATHUSHTRA

Maharshi Zarathushtra was born in Iran of Powrushaspa. Both he and his wife, Dugdhova, were deeply devout. Zoroastrians prefix the epithet Asho before their names. The word has the same meaning as the Sanskrit word Rishi. At the age of fifteen, Zarathushtra returned into solitude instead of entering into the Grihasta stage. In his solitary retirement, he strove to unite himself with his maker and in this supreme effort, he spent fifteen strenuous years. His original name at birth was Spritama and he was known as Zarathushtra when he became a world teacher (Zaratha - Golden, and Ushtra-Light). He began to preach from the age of thirty the message of Eternal Truth (the Sanaathana Dharma) and of the Supreme

Being, with emphasis on love and service to humanity. He is considered as a contemporary of the rishis who composed the earlier hymns of the Rig Veda. Not only is the language closely similar, but the contents of his Gaathaas show a marked similarity to those of the Veda.

EXODUS OF THE PAARSIS INTO HINDUSTAN

When Iran had to face the invasion of the Arabs, Zoroastrianism could not hold its own and was very nearly wiped out from the land of its birth. A few of the faithful, however, were still clinging to the Ancient Fire and these left their motherland and took refuge in the sisterland of Aaryaavartha (A. D. 936). These Paarsi Pilgrims Fathers brought with them the Sacred Fire of Ancient Iran. They erected and consecrated a temple on Indian soil for it and after many vicissitudes, the sacred Iraanshaah Fire has now been established at Udwada, a small town about thirty miles north of Bombay. There, the sacred flame is kept burning and helps to kindle the new Inner Fire—the Son of Ahura Mazda—in the hearts of the faithful. As long as that fire is burning, the message of Zarathushtra shall live in the world and his followers shall work for the uplift of humanity.

The Paarsis are happy in the land of their adoption—now, in very truth, their motherland, for they arrived here quite a thousand years ago. They are now among the favoured children of Mother India and they are friendly with all.

CHRISTIANITY

The founder of Christianity was Jesus Christ. In Hindustan he is known as Easu. Christianity is one of the paths or Panthaas for salvation of man like any other Pantha of Saivism or Vaishnavism. It starts with one great man as its centre of influence. The principles of his teaching are based on monotheism and Jesus as the Son of God is the intermediate Guru between Man and God. He preached the truth as he understood it.

He was persecuted and crucified for sedition, according to the laws of the time, at the age of thirty. He thus became a martyr.

FUNDAMENTALS OF CHRISTIAN BELIEFS

God, Jesus Christ, the Son of God, the Divine Messenger and the Holy spirit (Karma Sakti) are the three fundamentals of Christian belief. "Jesus is unique because he symbolises a new universe. Jesus is not the climax of the old but the beginning of the new creation. Creation involves creator, a power which creates and a creator that is created. The power was the Holy Spirit and the result or the creative expression was Jesus Christ. The Holy Spirit is the new creation the power that shapes the Kingdom of God.

"All practical religions are founded on power—Raaja Yoga on the power of mind, Karma Yoga on the power of action, Hatha Yoga on Kundalini, Christian Yoga on the Holy Spirit and so on. If we do not mistake accidents for essentials, Christianity is the Holy Spirit expressed in the image of Christ, not the Sermon on the Mount—not doctrines or teachings or churches. Indian Christianity looks to its Indian ancestral spiritual heritage for a Saadhana of the Holy Spirit. Christianity has its Saadhana as other religions. Some subdue their will to the teachings of Jesus—Karma Yogins; some, like Francis of Assisi, identify themselves with Jesus of history and reproduce in themselves his mind and heart, even unto the stigmata—Jnaana Yogins; some lose themselves in the joy of service and praise him, glorify him—Bhakthi Yogins. But all these externalize him. Those who see most, recreate themselves into the image of Christ by seeking the Holy Spirit. Subjugation, discipline, imitation are pathways. But recreation is not a pathway. It is a baptism of life, an alliance with a new creative Sakti, which is being born again not by will or blood but by the spirit.

"If we purge our eyes of tradition and prejudice, we see through Jesus or in Jesus a new creation emerging, a new creative energy—the Holy Spirit at the task of reproduction. We stand at the cradle of Jesus and witness the birth of a new humanity. We witness his life and see a new power in creative and constructive activity. We stand at his cross and feel the power of death and darkness exhausting themselves in one supreme act of self-preservation. We gaze at the risen Lord.

"The message of Christ is of cosmic significance—not a creed for a section or a religion for a few. Humanity needs it. Christ

is no religious leader. He is the fact—fact of a new creation. That India—her best and noblest sons and daughters—with vision purified by a matchless spiritual heritage, may see the cosmic significance of Jesus and that seeing may help in the new creation that is called the Kingdom of God, is the prayer of one who would subscribe himself as his unworthy servant."

THE HOLY BIBLE AND HINDU SCRIPTURES

It is now well established that Buddhist missionaries visited Greece and other parts of Europe three or four hundred years before the birth of Jesus Christ. Asoka encouraged these missionaries. It is no wonder that similarities of ideas and words exist between Buddhistic literature and the Bible.

For instance, the sentences—"At that day, ye shall know that I am in my Father and ye in me, and I in you" (John-14:20) and "Yomaam Pasyati Sarvatra Sarvam Chamayi Pasyati" (i.e., He who sees that I, the Parameswara Paramaatman am everywhere and sees all beings in Me) are a like in meaning and significance.

When it is definitely known that the Buddhistic literature and the Geeta were at least three or four centuries older than the New Testament, it is perfectly possible that such of the doctrines enunciated in the Christian Bible as are similar to those of the Geeta must have been taken into the Bible from the Geeta or from the Vedic religion by Christ or his disciples. It may be indirectly through Buddhist teachings or directly.

Tilak has proved in his Geeta Rahasya that a sect of ascetics called Esi or Esin suddenly came from somewhere into the Jewish countries about 200 years at most before Christ.

The most prominent principles of this sect were to remain celibates, to eschew meat and liquor, not to take oaths, and to live together socially in monasteries, and if any one of them acquired the property of society and if anyone had a desire to enter their sect it was necessary for him to serve as an apprentice for at least three years and after that to consent to observe certain rules. Their monastery was at Endgi on the western coast of the Dead Sea and they used to live there peacefully and as ascetics. The respectful references made by Christ himself and his disciples in

the New Testament to the opinions of the Esi sect (Mathew 5:34 19-12 & James 5:12 and the Acts 4:32-35) clearly show that Jesus Christ was a follower of this sect and He had to a great extent furthered the renunciatory religion of this sect.

There is no information to be found in the Bible as to what Christ was doing from the 12th to the 30th year of his life or where he was during that period. It is clear that he must have spent this time in the acquisition of knowledge, in religious meditation and in travel, and therefore, it is impossible to say definitely that he could not have come into contact directly or indirectly with the Buddhist monks during this period of his life, because the activities of the Buddhist monks had at that date gone as far as Greece. There is a book to be found in a Buddhist monastery in Nepal which suggests that Jesus Christ had at that time come to India and that he there acquired a knowledge of Buddhism.

SERMON ON THE MOUNT

The Sermon on the Mount gives the gist of the preachings of Christ as the following extract will show.

The fame of Jesus for healing all kinds of sickness among the people of Jerusalem attracted crowds of people and seeing the multitudes, he went up a mountain and lectured as follows:—

*"Blessed are the poor in spirit,
for theirs is the Kingdom of Heaven;
Blessed are they that mourn,
for they shall be comforted;
Blessed are they meek,
for they shall inherit the earth;
Blessed are they who do hunger and thirst after
Righteousness for they shall be filled:
Blessed are the merciful.
for they shall obtain mercy;
Blessed are the pure in heart,
for they shall see God;
Blessed are the peacemakers,
for they shall be called the Children of God,*

*Blessed are they which are persecuted for righteousness sake,
for theirs is the kingdom of Heaven;*

*Blessed are ye when men shall revile you and persecute you
and shall say all manner of evil against you falsely,
for my sake;*

*Rejoice and be exceeding glad for great is your reward in
heaven, for so persecuted they the prophets before you;*

After this manner, therefore, pray ye

Our Father which art, in heaven,

Hallowed be thy name!

The kingdom come. Thy will be done.

in earth as it in Heaven.

*Give us this day our daily bread and forgive us our debts
as we forgive our debtors;*

And lead us not into temptation, but deliver us from evil.

For thine is the kingdom and the power and the glory.

for ever."

CHARITY, RENUNCIATION AND FAITH

Charity, renunciation and faith are the cardinal principles of Christian religion. There is no distinction of caste in Christianity as in true Vaishnavism. God loves any one who is devoted to Him and worships Him with faith. You should not hate even your enemies.

The principles of charity and renunciation, which were preached by Buddhists, were copied by Jesus Christ to which he added the philosophy of devotion (faith-Bhakti).

SPREAD OF CHRISTIANITY IN HINDUSTAN

There are evidences as to the spread of Christianity in Hindustan in the first century after Christ. The Christian churches on the West Coast were very ancient. There are many sections amongst Christians called the Catholics, Protestants, Jesuit the Church of England, the Church of Scotland, the American Mission and so on. They all have different Missionary societies doing

propaganda and converting people to Christianity. The Roman Catholics worship idols and resemble the Hindus very much and have the greatest number of converts in the South.

The political superiority of Europeans gave a stimulus to the Christian movement. They established colleges and schools, orphanages and dispensaries. For some time, this had a demoralising influence on the people, but with the spread of the wave of nationalism, most of the Christians occupied the first ranks of the movement for the emancipation of the country. Religion did not interfere with patriotism but fostered it to some extent.

RELIGIOUS SECTS OF THE HINDUS: SAIVISM

In addition to the Puraanas such as Vaayu, Linga and Koorma Puraanas, the Saiva theism was expounded in the Aagamaas. There are twenty-eight of these manuals each of which has got a number of Upaagamaas, the total number of texts reaching upto 198. The Aagamaas were composed before the seventh century A. D. and their dualistic teaching formed the foundation of a new Saiva school, which is usually referred to as Aagamic Saivism. The Advaita philosophy of Sankara gave a new turn to Saivism. A distinct school flourished in Kashmir about the middle of the ninth century A. D., mainly under the influence of Sankara's philosophy, and substituted Advaita philosophy for the dualistic teachings of the Aagamaas.

Saivism flourished in South India and there is an extensive Tamil literature consisting of eleven collections. The author of the first three collections of hymns is the well-known saint Jnaana Sambandha, who probably flourished in the seventh century A. D. The eleven collection, together with the Tamil Puraana called the Periyapuranam, constitute the sacred literature of the saints and form the foundation of Tamil Saivism. The first seven collection, known as Tevaaram and composed by Jnaana Sambandha, his older contemporary Appar and Sundarar, are regarded as equivalent to the Veda and are sung along with Vedic hymns in certain religious processions. The eighth collection Tirumantram of Tirumalar reflects the theology of the Aagamaas and both are

masterpieces of poetic composition. The patronage of the later Pallavas (from 6th century A. D.) and the mighty Chola Emperors 10th century A. D. gave a great impetus to Saivism in the Draavida country.

THE VEERA SAIVAAS

An influential and very powerful Saiva sect, known as Veera Saiva or Lingayats, rose in the Karnaataka and Maharaatta countries. The early history of the sect is obscure. The names of Renukaacharya, born at Kolanupaaka in Nizam, and Panditaaraadhya, who lived at Bezwaada, are associated with the school of Veera Saivaas. Renukaacharya, started 18 mathaas. The mathaas of Panditaaraadhya are now seen at Aatmakur and Guntakal. Veera Saivism was brought into prominence by Basaveswara, the Brahmin Prime Minister of Vijjana, who usurped the Chalukya throne about 1160 A. D. Masavesa Puraana deals with his exploits. There are many Aayurvedic subjects dealt with in this Puraana. This new sect flourished at the cost of Jainism and Buddhism and was the main cause of their decay in the Deccan and Kanarese districts, which now constitute its main stronghold.

The Veera Saivaas have several peculiar characteristics. They give great prominence to the monasteries. In every Lingayat village, there is a monastery and it has a Guru. He need not visit a temple at all. The members of the sect worship Siva in his phallic form, reject the authority of the Vedaas, disbelieve the doctrine of re-birth, object to child marriage and approve of the marriage of widows.

THE SAKTAAS

The cult of Sakti, wife of Siva, attained great predominance during this period. It is based upon the Suamkhya philosophy according to which the Spirit or Purusha (here identified with Siva) is inactive, while Prakriti (identified with Sakti) is productive and is the universal material cause. Hence Sakti is superior to Siva. The system lays stress on the instinctive powers of sounds and the presence in the human body of a large number of minute chan-

nels or threads of occult force called Naadis and six great centres of occult force called Chakraas, described as so many lotuses one above the other. Hence arise the supernatural powers of the mantraas or mystic syllables such as Hrim, Hum, Phut etc., and the working of the miracles by mystic forms of yoga. Besides, the Saaktaas also believe in the magic power of diagrams (yantraas) and the ritualistic gestures made with fingers (mudraas.)

The worship of Goddess Sakti was accompanied by sacrifices of animals and human being. But the most characteristic feature of the cult was the Chakra Pooja, i. e., circle worship, in which an equal number of women and men sit round a circle and uttering mystic mantraas, partake of the Panchatattva, consisting of five elements, viz., wine, meat, fish, grain and sex. Many secerous practiees formed a part of the cult and a picture of this is given in the Sanskrit drama 'Maalath Maadhava.'

Detailed instructions of these practices are given in the text known as the Tantraas, Hence Tantrikism is used as a general name for similar rituals which are found in many religious sects. The Saiva Kapaalikaas and Kalamukhaas, for example, followed similar rituals and practices and they are found associated with the worship of many other goddesses.

VAISHNAVISM

Three systems are differentiated in Vaishnavism.

1. The Bhaagavatha system,
2. The Paancharaatra system, and
3. The Raadhaakrishna cult.

1. THE BHAAGAVATHA SYSTEM

It is generally believed that the Bhaagavatha Puraanaa was written in South India. Whether this is true or not, there is no doubt that the pure devotional element of Vaishnavism flourished in the Tamil country.

The most remarkable specimen of this is contained in the songs of the famous Aalwaars. Their number is usually reckoned as twelve and although their dates are uncertain, they may all be

placed between the fifth and the twelfth centuries A. D. Their devotional songs, called Prabandhaas written mostly in Tamil, are known as the Valshnava Veda and their images are worshipped along with those of Vishnu.

The Aalwaars are traditionally twelve in number. They belonged to the Pallava period in the main. They belonged to all parts of the Tamil area and one of them at least was a king of Malabar. They included the fair sex too, as one of the most popular of them is the celebrated Goda or Aandaal, to whom a magnificent temple was built and dedicated in later times at Srivilliputtur, her birth place in Tirunelveli District. The Aalwaars included a saint of the depressed classes, the famous Tirupaana Aalwaar. The Aalwaar movement ignored distinctions of caste and sex, of knowledge and ignorance. It attached importance only to the love of God as the means of salvation.

AANDAAL

Vishnuchitta's adopted daughter was the celebrated Goda (Aandaal), the only woman amongst the Aalwaars. Tradition has made her the Avataara of Lakshmi or Bhudevi herself. Refusing to wed any man but God, she led the life of a lover of the Lord, like the ancient Gopis, and devoted herself to divine service in the local temples. In memory of these services, she has left two poems, known as Tiruppaavai and the Naacchiyaar Tirumoli, which are exceedingly popular with the Sri Vaishnavaas. Choosing the Lord of Srirangam as her bridegroom, she imagined herself to be his bride and behaved as such. In the ecstasy of her spiritual passion, she would act like a mad woman oblivious of what passed around her. The Tirumoli contains the outpourings of this maddening love of God. Tradition records that Goda was eventually absorbed in the image of Sri Ranganaatha at Sri Rangam.

AACHAARYAAS

The next great landmark in the history of Tamil Vaishnavism is the rise of the School of philosophers known as Aachaaryaas. Naathamuni, the first of these, flourished about the end of the

tenth of the beginning of the eleventh century A.D. He organized the Sri Vaishnavaas and popularized the cult with the masses by collecting the songs of the Aalwaars, setting them to Dravidian music and having them sung in the temples. But he was also a great theologian and his school took up the task of giving a philosophical background to the Vaishnava theories and creeds. Naathamuni was followed by three Aachaaryaas, the last of whom was his grandson Yamunaacharya, a great scholar.

RAAMAANUJAACHAARYA

Yamunaacharya was succeeded by the famous Raamaanuja in 1016 A. D. He studied in the usual course based on the Veda and its subsidiary studies under the guidance of Yaadava Prakaasa, the head of the Philosophical Academy at Kaanchi, who was himself an Advaita teacher of renown. Then he went to Sringeri, when he was invited to take the place of Yamunaacharya, which he did and was finally placed in charge of the management of the temple. The learning and position of the great teacher aroused bitter jealousy and an attempt was made to murder him. In the later years of his life, he was subjected to persecution by the Chola King Kulottunga, who asked him to subscribe to the Saiva creed. Considerations of safety led him to migrate to the dominions of the Hoysala Uaadhava Prince Vishnuvardhana, where he succeeded in converting the brother of the reigning prince to Viashnavism. Raamaanuja imbibed the spirit of Bhakti from the Aalwaars, the Tamil saints. His principal doctrine is known as Visishtadwaita of qualified monism. His great task was to put religion on a secure philosophical basis. The great Sankaraacharya's doctrine of Monism (Advaitayaada) was a direct challenge to the Bhakti cult. If there is only one Absolute Spirit and all else is unreal, there is no scope for devotion of the Supreme God by the individual for the two are really one and the same. Raamaanuja set up against it a full and critical exposition of the Visishtadwaitavaada or qualified monism first propounded by Yumunaacharya. It was based upon the Upanishad and the Brahmasootraas and construed the individual soul as an attribute for the Supreme Soul but distinct from it. The latter dwells on the individual heart and can therefore be an object of devotion.

Raamaanuja follows closely the tenets of the Bhagavad Geeta in describing the mode of salvation, but his Bhakti is not so much an unbounded love as a continuous meditation or Upaasana prescribed in the Upanishads. Both in his philosophy and general practices, Raamaanuja follows orthodox Brahminism. His sect, known as Sri Vaishnavaas or Sri Sampradaayaas, has nothing to do with Gopaalakrishna i. e., Krishna as a cowherd boy. On the other hand, he recognises Sri (Lakshmi), Bhoo (Earth) and Lila (Sport) as the consorts of Vishnu.

PAANCHARAATHRA SYSTEM

Raamaanuja followed more or less Vaasudevism of the old Paancharaathra system recognising Vaasudeva with his four Vyoohaas and his identity with Vishnu and Naaraayana.

The most important development of the system is the growth of Pancharaathra Samhithaas which give a complete exposition of the faiths, beliefs and practices of Vaishnavism. The traditional number of these Samhithaas is 108, but nearly double that number of texts are named. Their date is uncertain but may be placed between 600 and 800 A. D. They show a considerable influence of the Tantrika element and lay stress on the Sakti of Vishnu. Otherwise, they show a normal development of the teaching formulated in the Naaraayaniya, a section of the Mahabhaarata.

The philosophy of Raamaanuja was further developed by Maadhva or Aananda Tirtha (13th Century A. D.) the founder of another sect. He conceived good as altogether distinct from the individual spirit. He travelled all over India fighting the philosophical doctrines of Sankara and establishing the Vaishnava creed on a definite philosophical basis. Maadhva's activities were chiefly confined to the Western or Malabar Coast.

RAADHAKRISHNAA CULT

The Southern Vaishnavism laid little stress on the cowherd element of Krishna and altogether ignored Raadha. Far different, however, was the case with the Vaishnavism in Northern India, which was first put on a philosophical basis by Nimbaarka, who

flourished after Raamaanuja probably in the 12 th Century A. D. His philosophy is a compromise between those of Raamaanuja and Maadhva as he believes God to be both identical and distinct from the individual spirit. But the chief difference from his predecessor Raamaanuja lies in substituting the old and pure Bhakti (devotion) for Upaasana (meditation) and giving prominence to the elements of Krishna and Raadha. A further progress of the Raadha cult is found in Jayadevaa's Gita Govinda where Raadha is the mistress and not the wife of Krishna.

The cult was carried to its extreme form by a Telugu Brahmin named Vallabhaacharya, whose activity falls in the first half of the 16th Century A. D. His Vaishnavism centres round Krishna, the beloved of the Gopis and his eternal consort, Radha. Elaborate rituals for the worship of Krishna and religious feasts and festivals were fully developed, all marked by a spirit of sportive enjoyment.

Bengal was saved from this degraded form of Vaishnavism by the famous Chaitanya or Sri Gauranga (1485-1533) A. D., a contemporary of Vallabha. The element of Raadha and Krishna had taken deep root in its soil, as the songs of Jayadevaa (12th century A. D.) clearly show. But the merit of Chaitanya lies in the fact that he elevated the passions of the couple to a high spiritual plane and stressed the emotional at the cost of the ceremonial side of religion. His piety, devotion and fervour introduced a pure and spiritual element in Vaishnavism, which offers a bright and refreshing contrast to that promulgated by Vallabha.

In the Maharaashtra country, Raadha was replaced by Rukmini, the lawful wife of Sri Krishna, who plays all along a subordinate role to her husband. The great preachers of this sect were Naamadeva (end of the 14th century A. D.) and Tukaram (17th century A. D.), the founders of the popular form of Vaishnavism in the Maratha country. Ramaananda (14th century A. D.) replaced Krishna and Raadha by Rama and Sita. This was further developed by his famous disciples, the chief among whom were Kabir (15th Century A. D.) and Tulasi Das (1532-1623 A. D.).

The religion propounded by them was more chaste and pure. The simple beautiful verses of Namdev, Tukaram and the disciples of Ramaananda are full of piety and they acquired wide celebrity far beyond sectarian limits. In addition to the purification of the

Bhakti cult and its elevation to a high spiritual level based on secure foundations of morality, these Vaishnava teachers together with Chaitanya have made other notable contributions to the culture of the mediaeval ages and they may be summed up as 1. preaching in vernacular which thereby got a great impetus; 2. ignoring caste distinctions and admitting even the lowest caste to their folds and 3. definitely rejecting rites and ceremonials as useless and laying stress on the morality and purity of the heart. Excepting Ramaananda and Chaitanya, the others carried this last feature to an extreme form by disregarding altogether the worship of the image.

It is interesting to recall that of the chief disciples of Ramaananda who founded different schools, Kabir is said to have been a Mohammedan weaver, Dadu was a cotton cleaner and Rohidas was a leather worker. People of all classes and castes, including Muhammadans, were taken into these sects and thus began that levelling process, the completion of which is still the aim and, alas, the despair of modern reformers.

NIMBAARKA

Nimbaarka also protested against Sankara's doctrine like Raamaanuja. He was born at Nimbapur in Bellary District. He died in 1162 A. D. His father was a Telugu Brahmin and a Bhaagavatha. The doctrine of Nimbaarka is both monistic and pluralistic (Dwaitaadwaita). The inanimate world and the individual soul and God are distinct from one another as well as identical. Brahman is the material as well as the efficient cause of the world. It is in the doctrine of Nimbaarka that Krishna the Cowherd comes into prominence as the Supreme Lord of the universe. The way to eternal beatitude is Bhakti for the lotus-like feet of Krishna and that Bhakti is only to be obtained through grace. Thus we find that in Nimbaarka's system for the first time, the element of sport in Vaishnavism comes to the surface and retains its place ever afterwards. Bhandarkar (Vaishnavism P. 66) calls it the fourth element. The followers of the school of Nimbaarka are fairly numerous around Mathura in Uttar Pradesh.

The difference between Raamaanuja and Nimbaarka is that while the former confined himself to Naaraayana and his consorts

Lakshmi, Bhoo and Lila, the latter gave exclusive prominence to Krishna and his mistress Raadha attended by thousands of her female companions, the Gopis.

MAADHVAACHAARYA

About 1200 A. D. was born another great teacher whose name was Madhva at Kallyanpur in Udupi district of South Kanara, about 40 miles west of Sringeri. At an early age, Madhva renounced the world and adopted the life of a wandering monk. When he began his work, the atmosphere of the country was charged with the spirit of debate and the young monk found himself amidst warring exponents of rival doctrines. Years of strenuous toil were devoted to study and discussion and when the task of preparation was finished, Madhva started on a teaching tour during which he defeated several of his opponents. He visited the north and at Haridwar, when he returned from his meditation in the Himalayaas, he proclaimed the Supreme God-Head of Vishnu and published his commentary upon the Vedaanta Sootraas. The final aim of man is the direct perception of Hari, which leads to Bhakti and the final stage in a man's spiritual evolution is direct and steady remembrance of a Saguna Iswara which is identical with Bhakti. Maadhva divided souls into three classes:- 1. those destined to enjoy heavenly bliss; 2. those eternally destined to re-birth and death and 3. those doomed to everlasting hell. Release from transmigration can only be obtained by means of knowledge and devotion.

RAMANAND

Ramaanand, who flourished in the 14th century A.D., tried to do away with caste distinctions. Having gone through the usual course of education, he became the disciple of Raaghavendra of the Visishtadwaita school. He went about visiting holy places demolishing the doctrine of Maaya and establishing the worship of Raama and Sita. He was the first to employ the vernacular language for the propagation of his doctrines. He rejected caste and admitted to his discipleship men of all classes without any distinc-

tion. Ramaanand's followers are numerous in the Gangetic plains. They worship Vishnu under the form of Raamachandra with his consort Sita and their favourite work is the Bhaktamaala of Nabhaaji. Of all the disciples of Ramaananda, Kabir was the most famous.

VALLABHAACHAARYA

Vallabhaachaarya was the son of Lakshmana Bhatta, a Telugu Brahmin. He was born in the year 1479. From his early boyhood, he showed signs of genius and came to be looked upon by his contemporaries as a prodigy of learning. Having finished his education, he started on his travels and reached the court of Krishna Deva Raya, King of Vijayanagar, where he defeated the Saivaas in a public discussion. He visited Mathura, Brindavan and many other places and finally settled in Benares where he composed seventeen works, among which is his Bhagavat Tika Subhodini. In the tenth book of this work is contained an authoritative exposition of the chief doctrines of the sect. Vallabha taught Suddhadwaita or pure monism. Like Sankara, he does not brush aside the individual soul or the inanimate world as illusion but maintains, on the other hand that Maaya or illusion consists in establishing a relation between the Brahman and the individual soul and the inanimate world is a manifestation of it. Bondage of the individual soul is due to delusions which can be got rid of only by having recourse to various ways of Bhakti. The path of devotion preached by Vallabhaachaarya is called the Pushti Maarga, wrongly translated by some European scholars as "the way of pleasure". It really means the path of acquiring the grace of the Almighty. It is by loving God with a full knowledge of his greatness, but without any desire, that grace is acquired. Non-attachment to worldly pleasures and self-renunciation form in reality the keynote of his teachings. In one of his works, he writes, "The home, the centre of all worldly desires, should be renounced in every way. If it becomes impracticable, one should dedicate it to the service of God for it is he alone who can emancipate man from evil." Again he writes that realisation of God is impossible in those whose bodies are swayed by passion. But as time passed, the true spirit of Vallabhaa-

chaarya's doctrines was forgotten and his successors laid stress upon the sports of Krishna's childhood and taught that a God possessed of such human qualities should be worshipped not by fasting and prayer but by sanctifying all human pleasures in his service. According to the pure Vaishnava faith, Krishna's love for the Gopis is to be explained allegorically, but the followers of Vallabhaachaarya interpreted it in a material sense.

The cult of Vallabhaachaarya became in its degenerate form, as Monier Williams writes, the Epicureanism of the East. Its followers began to aim to at securing the ends of religion not by means of self-denial and self-mortification, but by the indulgence of appetites. Hence the system has lent itself to great abuse and even the pontiffs of the sect have earned a notoriety by reason of their habitual pursuit of pleasure. The followers of the sect consist of the wealthy trading classes of Gujarat, Rajputana and the country round Mathura, who are taught that all their belongings should be dedicated to the Guru and this doctrine is not seldom carried to the extreme. Dr. Bhandarkar rightly observes, "The spirit of this system, therefore, seems to be sportive enjoyments and it cannot but be expected to influence the ordinary life of its followers." The undesirable practices of the sect afterwards led to the puritanical movement of Swami Naaraayana in the 19th Century.

CHAITANYA

A contemporary of Vallabhaachaarya was the celebrated Bengali reformer Chaitanya, who was born in 1485. At the age of 25, Chaitanya renounced the world and became a sanyaasin and for six years wandered about the country preaching the doctrine of love and converting the exponents of Adwaita doctrine to his system. After these wanderings, he returned to Puri, where he spent the remaining 16 years of his life. Chaitanya denounced caste, proclaimed the universal brotherhood of man, the inefficiency of mere Karma of ceremonial rites and that the worship of Hari and the singing of his name are the only effectual means of salvation. Love and sport are the distinctive characteristics of this system. The highest God is Sri Krishna, who is so beautiful that

even the God of Love falls in love with him. His eternal sports are carried on in Gokula. The Vedaantic theory of Chaitanya is the same as that of Nimbaarka, viz. Bhodaaheda or identity as well as difference. The individual soul can attain Krishna, the Supreme Lord, by Bhakti alone. As the bee is distinct from the honey and hovers about it, and when it drinks it, is full of it, i. e., is one with it, so the individual soul is at first distinct from the Supreme Soul, seeks it consistently and continuously and when, through love, he is full of the Supreme Soul, he becomes conscious of his individual existence and becomes as it were absorbed in him."

The highest stage which the individual soul can attain is to indulge in eternal sports with his Lord in the relation of lover and his beloved. Raadha is nothing but the individual soul immersed in an ocean of rapturous love for the Great Lord. She is, thus, nothing but idealised love. To love Krishna eternally as a servant, as a friend, as a son and lastly as a lover, is the highest goal of man and not Mukthi. Thus we find the system of Chaitanya aims at the culture of emotions in the individual soul and not of intelligence (For Chaitanya's exposition of Bhakthi see "Chaitanya Chari-taamritha" pp. 232-240—J. N. Sarkar's translation). Minute shades of emotions are distinguished and the works of the Chaitanya school of Bhakti are sometimes a psychology of the fine emotions.

Love was so great a passion with him that the thought of Krishna playing upon his flute, of the wild woods of Brindavan and the cows grazing in the verdant meadows, of the milk-maids bathing at the ghats of the Jumna, throw him into an ecstasy. Love is the watchword of the Chaitanya cult. "Every man must offer body and soul to Him, and must disdain his personal gratifications. He must be prepared to carry out his Lord's will and in doing so must not shrink from any sacrifice. He will worship his image, he must talk of him, he must wreath flowers for him, he must burn incense and wave the chamra in his temple and offer his services day and night to the Lord and to the world as well. Vaishnavism, it must be repeated, is not the religion of the recluse nor is it a non-proselytising creed." His heart was full of sympathy for suffering humanity and often he burst out in bitter anguish. "My heart broke to see the sorrow of mankind. Lay thou their sins upon my head; let me

suffer in hell for all their sins so that thou mayest remove the earthly pangs of all other beings." Such was the gospel of love which Chaitanya preached to the high and the low, to the Brahman and the Soodra. The followers of Chaitanya are numerous in Bengal and Orissa and his name is still chanted in many a home in joyous gatherings at eventide with a fervour and devotion which is almost mediaeval in its depth and intensity.

NAAMADEVA

(1270 - 1350 A. D.)

Naamadeva was a Maraatta saint, a man of low origin whose probable date of birth must be fixed in the latter part of the 13th century. Naamadeva preached the unity of God, deprecated idol worship and all outward observances. His powerful faith in God reveals itself in his hymns.

KABIR

(1398 A. D.)

Kabir was the greatest disciple of Ramaananda. He was born about 1398. His origin is shrouded in mystery. Tradition says that he was born of a Brahmin widow who cast him off near a tank in order to escape social odium. The child was picked up by a weaver Niru and was brought up by his wife with great affection and care. When he grew up, he took up his foster father's trade but found time to moralise and philosophise.

He seeks freedom from transmigration and helps to attain the true path by means of Bhakti. He has an aversion for the theological subtleties and condemns all sham, insincerity and hypocrisy which are mistaken for true piety. He makes no distinction between the Hindu and the Turk, who he says are pots of the same clay and who are striving by different routes to reach the same goal. He pointed out the futility of mere lip-homage to the great ideal of truth and religion. Of what avail is the worship of stone and the bathing in the Ganges if the heart is not pure? Of what avail is a pilgrimage to Mecca, if the pilgrim marches towards the Kaaba with a deceitful and impure heart?

SURADAAS

Suradaas is the great poet of literature dedicated to Krishna as Tulsidaas is of the literature of Raama: He belongs to the first half of the sixteenth century and his date is fixed by some as between 1483 and 1563 A. D. He was blind from his very birth.

THE YOGI PANTH

The Yogi Panth (Yogi sect) also inspired many of its members to the composition of songs and lyrics. The influence of the songs of Gopichandra of Bengal can be observed all over India. It is chiefly the Mohammedans who compose and sing these songs and are known in the north-west of India as Bhartharis or Bharthri-haris. Though Mohammedans, they wear the ochre robe of Hindu ascetics and their presence is indispensable to many Hindu ceremonies.

RAVIDAS, JHALI AND MIRA BAI

Ravidas was a cobbler by birth, but his religious life was as exalted and pure as it was deep. It is said that Jhali, the Queen of Chittore, received her initiation into religious life from him and Mira Bai also completed her spiritual discipleship under his guidance.

TULSIDAAS

Tulsidaas, though born long after Kabir, was inspired by the spiritual life of Ramaananda. He composed the great Raamaayana in Hindi verse, which has been and still is the one spiritual support of a large number of devotees throughout North India and even in some parts of the South. He was born in 1532 A. D. in a Brahmin family of the Banda District. His other work, the Vinaayapatrika, is a rare book of prayers uttered from the depths of a heart filled with devotion. He does not belong to the group of Kabir, Dadu and other free spirits of the middle ages because he did not reject the caste system and the other social and religious conventions of

the time, but his high poetic vision and deep devotion won for him many admirers from among the liberal-minded Mohammadans of his time. The famous poet Abdar Rahim Khan Khana, whose liberality of mind and sense of literary appreciation were unparalleled and who was also a minister of Akbar, was one of his disciples.

AMIR KHUSRAU & BADRU - UD - DIN

It would be wrong to suppose that the Muslims were mere savage conquerors and that the Indian intellect remained in a state of torpor from 1200 A.D. Some of the Muslim Kings took great interest in literature. The Prince of Poets was Amir Khusrau, the parrot of Hind, whose many works testify to the boundless fertility of his muse.

Besides being a great poet, Khusrau was a master - musician, well versed in the technicalities of art. The poet adorned the court of Mohammed Tuglaq, who was one of the most accomplished princes of the time.

Another poet who acquired much celebrity in his age was Badru-ud-din more familiarly known as Badr-i-Chach from his native city of Chach or Takhand. He attended the court of Muhammed Tuglaq and composed odes in his praise.

HISTORICAL PROSE

Among writers of historical prose, the most distinguished are Minhaj-us-Siraj, Zia-ud-din Birani, Siraj Afif, Ain-ul-mulk Multani and Ghulam Yahya-bin-Ahmad, the author of the Tarikh-i-Mubarak Shahi.

Among the literati of Muhammed Bin Tuglaq's court was Maulana Muaiyyan-ud-din Umrani, the author of the commentaries on the Husaini, Talkhis and Miftah. Besides the Maulana, there were other poets, logicians and philosophers in addition to physicians at court with whom the Sultan used to hold discussions. During the reign of Firuz, Maulana Khwajagi, Ahmad Thanasari and Qazi Abdul Maqtadir Shanihi are mentioned as the most distinguished literary men of the time. Ain-ul-mulk Multani who held important offices in the State under Alauddin, Muhammed Tuglaq

and Firuz Tuglaq, was one of the shining lights of the literary firmament. Shamsi-Siraj Afif writes of him: "Ain-ul-mulk was a clever and accomplished man and of the highest ability." Yahya, the author of the Tarikh-i-Mubarak Shahi, is a writer of simple and elegant prose. His history is valuable for the period during which the author lived and in many respects corrects and supplements Minhaj, Birani and Afif. Qazi Shihab-ud-din Daulatabadi was a famous writer who wrote the Hawash - Kafiah Irshad and Bad-ul-bayan. Maulana Shaikh Illahabad of Jaunpur wrote expositions of the Hedaya.

PHILOSOPHICAL LITERATURE

Philosophical literature was not wanting and Mughis Hasnavi's discourses on metaphysical and practical subjects are not unknown to students of Eastern literature. Other famous writers of the time were Zahir Dehlwi on whom the title of Zahir was conferred by Sikandar Lodi, Maulana Hasan Nashqi, Maulana Ali Ahmad Nishani and Nurul Huq.

The Muslim scholars were not altogether devoid of a knowledge of Sanskrit. The Arabs had learnt much from Hindu medicine, philosophy and astronomy and during the Caliphate of Al-Mamun, the Augustan age of Arabian literature, Arab scholars cultivated a knowledge of Sanskrit as is evidenced by Muhammed Bin Musa's treatise on algebra and the medical treatises of Mikah and Ibn Dehan. Al Biruni, who came to Hindustan in the train of of Muhammed of Ghazni, acquired a knowledge of Sanskrit and translated Sanskrit works into Arabic. In the 14th Century A.D. when Firuz Tuglaq captured the fort of Nagarkot, he seized a Sanskrit library which contained valuable works. He ordered Maulana-iz-ud-din Khalid Khani to translate the work on philosophy, divinations and omens into Persian and entitled it Dalayal-i-Firuz-Shahi.

During the reign of Sikandar Lodi, a medical treatise was translated from Sanskrit into Persian.

The physicians of Korasan and Hind were brought together and they compiled a new treatise after consulting numerous works on medicine. The book so compiled received the name of Tibbi Sikandari.

HINDU LITERATURE

It is impossible to attempt here a complete account of the vast literature, secular and religious, that was produced by the Hindus during the early middle ages. The virility and vigour of the Hindu mind was not extinguished by Muslim conquest and though State patronage was denied to Hindu literature in Northern India, it continued to flourish in centres away from Muslim influence. There was an abundant outcrop of religious and philosophical literature. In the eleventh century, Raamaanuja wrote his commentaries on the Brahma Sootras in which he expounded his doctrine of Bhakti, which was, according to him, only a mode of Jnaana. Parthasaarathi Misra wrote a number of works on the Karma Mimaamsa about 1300 A. D. of which the Saastra Dipika was most widely studied. Several works were written during this period to expound the doctrines of Yoga, Vaisesika and Nyaaya systems of philosophy. Nyaaya was assiduously cultivated by Vikramaseela and by the Jains who produced several works. The greatest Jain logician was Deva Suri who flourished in the 12th century. The Sanskrit grammarian, Hemachandra, was a Jain and the northern recensions of the Panchatantra bear the impressions of Jain influence.

JAYADEVAA'S GEETA GOVINDA

The leaders of the Bhakthi movement made valuable contributions to philosophical literature and their works were widely studied by their followers. Lyrical poetry was also written and an excellent specimen of it is Jayadevaa's Geeta Govinda which was probably written in the 12th Century A. D. It describes the love of Krishna and Raadhā and their enstrangement and final union and the sports of Krishna with the milkmaids of Vraja. The beauty, sweetness, cadence of words and the wealth of emotions, are all worthy of praise. Jayadevaa has treated his theme with wonderful skill and attained great perfection of form by combining grace of diction with ease in handling the most intricate metres. Keith's praise of him is equally warm.

RUPA GOSWAMI

The Vidagdha Madhava and the Lalitha Madhava were composed by Rupa Goswami, Minister of Hussain Shah about 1532 A. D. The dramas of Rupa reveal poetical powers of a high order and in the words of Dr. Dinesh Chandra Sen they prove that "religion and faith are no bitter deeds for deceased souls and that asceticism is not to be always associated with skeleton forms tortured by self-denial and austerities." Jiva Goswami was also a prolific writer. He wrote as many as 25 works in Sanskrit all distinguished by uncommon learning and power of assimilation.

DHARMA SAASTRAAS

Regarding Dharma Saastraas, it may be said that some of our best commentaries were written during this period. Vijnaaneswara wrote the Mitaakshara, his famous commentary on Yajñavalkya, according to MacDonnel, in 1100 A. D. In the first quarter of the 12th century lived Jeemootha Vaahana, the author of the Daaya-bhaaga, which forms the basis of the modern law of inheritance and partition in Bengal. From the 13th to the 15th Century, Smrithi literature, flourished in Mithila so luxuriantly that the writers came to be regarded as forming a separate school. A number of writers arose, the most famous of whom are Padam Dutta Bhatta, Vidyaa-pathi Upaadyaaya and Vaachaspathi Misra, who flourished in the second half of the fifteenth century. Astronomy was not neglected and the last great Indian astronomer, Bhaaskaraachaarya, was born in 1114 A. D.

Mithila fortunately escaped the ravages which invariably followed the Muslim conquests. The Bengali scholars wrote on Nyaaya Smrithi and Bhakti Darsana. Raghunanden Misra's work on Smrithi is too well known to need any mention.

SAAYANA AND MAADHAVAACHAARYA

Nowhere was literary activity more manifest than in the South which never came under direct Muslim influence. The Hindu dynasties encouraged learning and the cause of culture received a great

impetus under the Vijayanagar kings. It is stated on one of the inscriptions that the Vijayanagar Prince Maroppa with his Minister Maadhava compiled the Sivaagama Sootra. Saayana, the famous commentator on the Veda, served as Minister in the time of Hari Hara II, and his brother Maadhava adorned the same office under Bukka. He is the author of the famous work Sarwadarsana Sangraham. The princes of the Saluva dynasty patronised letters and Krishna Deva Raya was a liberal patron of Sanskrit and Telugu literature. The numerous inscriptions show that a knowledge of Sanskrit was widely diffused and court poets and writers were past-masters in drafting official documents.

JAIN WRITERS

The Jain writers of the Digambara school wrote their works in the language current among the people and this gave a literary shape to the Kanarese and Tamil languages. The activities of the Svetambara Jains up to the 11th century were confined to the systematisation of the exposition of their canonical works. The period after the 11th century is remarkable for the production of independent philosophical and poetical works. Among the writers of the period the most famous is Hemachandra. An elaborate Aayurvedic work Khagendra Mani Darpanam in Kanarese was written by a Jain author.

A great impetus was given to Hindu literature by the growth of the Bhakthi movement in Northern India. Some of the leaders of this cult wrote in Hindi and composed some of the finest devotional hymns that exist in the world's religious literature.

SYNTHESIS OF HINDUISM

The successive waves of invaders and immigrants to Hindustan such as Greeks, Huns, Scythians, Bahlikaas, Saakaas and Guptaas were silently absorbed into the Hindu fold. They found their place in one of the Chatur Varnaas. The caste distinctions were not so rigid as they are now and the castes were accepted as an economic and social organisation intended for the benefit of the community. People lived securely under the protection of the Ksha-

triyaas, who deemed it a sacred duty to guard the persons and property of the people.

But when the heterogenous population of Hindustan with well-marked social, religious and ethnological differences had to face a belligerent power organised on a military basis and bound by the strong ties of religious brotherhood of Islaam, the new order replaced the old. The numerous Rajput princes hopelessly blinded by petty jealousies, failed to visualise the future that lay in store of them. Even the repeated raids of Mahammad of Ghazni and the untold losses of wealth did not force the Rajput princes into a solid union for the defence of their homes.

A great many of them perhaps felt consciously or unconsciously that the Mussalmans would be absorbed into the society in the same manner as the past invaders of Hindustan. But the Muslim conquerors refused to be so absorbed. In fact it happened the other way. Many Rajput princes became enamoured of the splendour of the Moghal durbar and coveted matrimonial alliances with the Mohammadans and became easy converts of Islaam, although some patriotic Rajputs like the Rana of Chittor fought to death and covered themselves with ever-lasting glory.

ADMINISTRATION

It would be equally wrong to suppose that the Muslim rulers were savages who knew nothing of the art of civilised administration.

Originality was not wanting in the Muslims. Some of them took the bold step of attempting to secularise the State by severing priestly functions from political duties although the attempt did not succeed. They emphasised the importance of raising the crown above all parties and functions and subordinating the claims of orthodoxy to the interests of the State. They succeeded partially in their attempt. The process must be gradual and slow. A period of one or two centuries is nothing in the long history of Hindustan. Islaam and Christianity are only some of the paths or ways for attaining salvation like Vaishnavism. The combined genius of the Hindus and Muslims and Christians who live here will surely find a solution for the perplexing problem that besets us today, namely the

problem of a united nation with common hopes and aspirations. After all, they are children of one another singing the common song, "HINDUSTAN HAMAARAA."

IMPERIAL UNITY

The Islaamic conquest, however, did not prove an unmixed evil. It established imperial unity in the place of the system of hostile States and taught the people to respect a single authority in the country.

During the Muslim rule, there was no economic drain, however profligate or extravagant a ruler might be. The Mahammadans spent the treasures of the State in the country itself. The vast wealth of Hindu India passed into Muslim hands. The fact that the Muslims had made India their permanent home had a profound effect on the economic situation. However depressing the political atmosphere may have been at times, however acute the distress in times of famine, there was no dearth in normal times of articles of food which are vitally necessary to the healthy and vigorous existence of a nation, a fact which was brought home to us by the rapid deterioration of the physique of our people in modern times. Further away from the great cities, which became the centres of Muslim power, life in the country was not very much disturbed by the conquest.

HINDU GENIUS

Though the Hindus lost their political power, the culture of the race kept up its uninterrupted flow as is shown by the many intellectual and religious movements which were organised by men who were great alike in the realms of thought and action. Excluded from the secular sphere of the State, the Hindu genius found an outlet in religion and the new school of reformers tried to purify a system which was encrusted with superstitious rites and practices so completely at variance with the true spirit of Hindu religion. The names of Ramaananda, Kabir, Chaitanya, Nanak and Tulsidaas will stand for all time to come as the beacon lights to guide humanity which is only too prone to fall into

error and superstition. The very fact that Hindu society was able to produce such great men furnishes a refutation of the theory that the Hindu genius had become decadent and sterile under Muslim rule; on the contrary, it proves the virility and vigour of the Hindu mind.

VALOUR OF THE HINDUS

Although Hindustan was subjected to Muslim rule for various reasons as already indicated, the valour of the Hindus did not die out. From time to time, they exhibited great courage and skill and established immortal fame for themselves. When a huge army of Creek soldiers was threatening an invasion of Hindustan from the North, young Chandragupta collected a band of heroic men and drove them away. Selucus, the great general of Alexander, had to seek peace by offering his daughter in marriage to Chandragupta (B. C. 303). Yet Chandragupta was a Jain, bound by the principles of Ahimsa,

Vikramarka at the commencement of the 6th century saved the country from the invasion of the Saakaas and Sri Harsha (606 - 646) drove away the White Huns and established his empire from the Himalayas to the Narmada and extending to the eastern and western seas. In the 12th Century, Prithviraj, the King of Delhi, had established a great reputation for chivalry and heroic exploits and marched against the Ghori chief at the head of a large army and scattered the Muslim army with tremendous vigour. But for the treachery of Jayachandra of Kanauj, his father-in-law, the history of Hindustan would have been different.

In the 16th Century, young Krishna Deva Raya of Vijayanagar stemmed the tide of Muslim expansion by lavishly patronising them. And lastly the Maharattas, Sikhs and Rajputs defended the country against foreigners until at last they were overpowered by internal dissensions and intrigues. However, we have reason to be proud of the glorious history of our past.

During the Bhakti Yuga, the Hindu and Muslim cultures reacted upon each other in such a manner that both the cultures received a polish by their contact. Economically, Hindustan did

not suffer in spite of Muslim rule, but on the other hand, enriched and achieved such an international reputation that it came to be called the "pagoda tree" so that European nations were attracted to carry on trade with it by the general prosperity and peace that the country enjoyed.

Politically, imperial unity was achieved. Some new methods of administration were introduced by the Moghuls and the Maharatta rulers which even today are followed in certain of the departments. The political consolidation effected under the Muslims did not, however, suppress the spirit or the valour of the Hindus, for the latter once again reestablished themselves and maintained their superiority by the expansion of the Maharatta empire over nearly the whole of India reducing the rule of the Moghul emperors of Delhi to a mere nominal sovereignty. But for the treachery and diplomacy of the foreigners, assisted by the downfall of the Braahmana and the Kshatriya from the ideals of Swadharma, which brought about disruption in the whole social structure of the country the mighty confederacy of the Maharatta state, constituting the Maharatta empire, would have kept up their independence and would have absorbed the Islaamic races into their own elaborate structure, as was done with many other races that had been entering Hindustan from time immemorial.

The effects of the Bhakthi movement are summarised by M. G. Ranade, Judge, Bombay High Court, in his "Rise Of Maharatta Power" (1900). In the Bhakthi Yuga, numerous saints of Hindustan preached a faith which was at once tolerant and catholic, deeply spiritual and yet not iconoclastic.

The movement gave us a literature of considerable value in the vernaculars of the country.

It modified the structures of the old spirit of caste exclusiveness. It raised the Soodra classes to a position of spiritual power and social importance almost equal to that of the Braahmans.

It gave sanctity to family relations and raised the status of women.

It made the nation more humane and at the same time more prone to hold together by mutual toleration.

It suggested and partly carried out a plan of reconciliation with the Muhammadans.

It subordinated the importance of rites and ceremonies and of pilgrimages and fasts to a higher excellence of worship by means of love and faith. It checked the excess of polytheism.

It tended in all these ways to raise the nation generally to a higher level of capacity both of thought and action. It prepared the Maharattas in particular to take the lead in reestablishing a united Hindu power in the place of the foreign domination. These appear to be the principal features of the religion of Maharashtra which Saint Raamadas, the guru of Sivaji, had in view when he said "Propagate the Dharma of Mahaaraashtra."

AAYURVEDA IN BHAKTHI YUGA

The influence of Sanskrit began to grow less as that of the provincial languages increased. The Provincial languages were enriched by translations from Sanskrit. Much of the literature was in poetry. The physicians depended more upon family traditions and they recorded their experiences in manuscript books in prose handed down from generation to generation.

There are evidences of physicians drawing from new sources of information and adding to their literature. Gurukulaas and Tols continued to teach Aayurveda as a special subject and the feudatory states patronised them. Rich people had large quantities of valuable medicines prepared and stocked for sale as well as for distribution among the poor. The physicians used to get a share in them for their own use.

*"Ardham stddha rasasya talla
ghrutayor lehasya bhaagoshtamah.
Samsiddhaa khila loha choorna
vatikaadeenaam tadhaa saptamah.
Yodeeyeta bhishagvaraaya
gadibhir nirdisya dhanvantharim.
Sarvaarogya sukhaaptaye
nigadito bhaagassa dhanvanthare."*

(Rasaratna Samuehchaya- Ch. 8 -1350 A. D.)

The physician is entitled to get in return for his expert services;

"Half the share of the prepared medicines in case of mercurial preparations;

"One-eighth share of the stock of prepared medicines in the case of oils, Grithams (medicated Ghees) and Lehyams;

"One-seventh share of the stock of prepared medicines in the case of all other metallic articles or Bhasmaas, powders or pills."

"When the medicines are prepared for a merchant and intended for trade, the physician is entitled only to get a share of 9 percent of the stock of prepared medicines. The physician is prohibited from taking more than this share and is also enjoined to distribute his share free to the needy."

The study of the pulse was a special characteristic of this period. Many books appeared on this subject during this period. Rasa Saasthra was first developed as a secret science among the Siddhaas although ultimately it became a branch of Aayurveda. Valuable books on Rasa Thantra such as Rasa Ratnaakara, Rasa Ratna Samuchchaya and Rasaarnava were published. Mercury and gold were first used in India in the treatment of syphilis and they continue to be the favourite medicines to the Hindu physicians today.

Camphor and Madhusnuhi, largely imported from China, were included in the Aayurvedic Pharmacopoea. Opium, ganja and several other foreign drugs were introduced into the Hindu Pharmacopoea. Saarangadhara, Bhaavaprakasa, Yogaratnaakara, Basavarajeeyam, Chintamani, Nighantus and such other books were published in Sanskrit with commentaries in provincial languages as hand books for practitioners of Aayurveda. Chikitchaasaaram, a manual of medical treatment, was commonly used throughout India. The classical works of Charaka, Susruta and Vaagbhata were studied only by the high-class physicians and acharyaas.

Thus Aayurveda was kept up as a living science and as the only source of medical relief until the establishment of allopathic dispensaries which acted as rivals of Aayurveda. Surgery also was evidently in practice in the troublous times when wars were raging between different peoples and with the foreigners.

Many Aayurvedic works were translated into Persian and Arabic as already stated above. The Muhammadan rulers adopted the Aayurvedic Pharmacopoea through Hakeems, who were specially patronised by them. The preparations were sometimes altered to

suit their tastes. Some drugs from Western Asia, Greece and Rome were introduced through the Hakeems in India, e.g. Saalamisri and Rubarb. Aayurveda had all round development during this period compared with the different medical systems of the world of that time and it may be said to have been superior to them all. It was practised as a domestic art and also as a profession throughout Hindustan. There was fairly big international trade in drugs and prepared medicines. Aayurveda further helped to develop the industries in metals and the art of dyeing and printing handsome apparel for which Hindustan was famous. Above all the culture of Aayurveda satisfied the four aspirations of life, viz., the physical, mental, intellectual and spiritual development of the people technically known as Dharma, Artha, Kama and Moksha. Thus Aayurveda is not only the science of life as a whole. The value of Aayurveda should be appreciated in such an elaborate setting and with such backgrounds as a "guide to perfect life."

After the advent of the European nations into India, there was great competition among the various nations of Europe to exploit the rich treasures of drugs and other economic products. Thus we find a number of books valuable in their own way, like the Pharmacopoea of India, Economic Products of India and others by Watts, Roxford, Dymock, Ainslie and many others who were in great earnestness about their work. They, however, did not study Aayurveda and did not come into close contact with the practising Aayurvedic physicians. Therefore their writings defective and are one-sided.

AANGALA YUGA (BRITISH PERIOD)

(1858 to 1947)

Aangala Yuga may be said to begin with the year 1858 A.D. The last organised effort of the people and the princes of Hindustan, including the Musalmaans, to throw off the British yoke was suppressed in that year. Since then, the British authority was established on a secure foundation because the people were disarmed completely.

Just as in the Muslim period, the higher classes of the people of Hindustan imitated the language, dress and fashions of the

Musalmaan Emperors, so also the wealthy and educated classes during the British period became enamoured of European civilisation and began to spe all their habits, good, bad or indifferent. There was a hypnotic spell of illusion which dominated the history of Hindustan for one or two generations.

In fact Vedic (Hindu) Dharma began to wane rapidly with the advent of Kaliyuga i. e., over 5, 000 years from now. The Mahaabhaaratha period may be taken as the last record of the golden age of Hindustan. Adharma gradually increased from Satya Yuga down to Kali Yuga. The root of all Adharma is selfishness, i. e., greed which tempts a man to possess more than his needs.

PHILOSOPHICAL BASIS OF HINDUISM

The Hindus were an intensely practical people. They evolved a social structure for the gradual evolution of man into a perfect being. This structure is called Varnaasrama Dharma. The Varna. although literally it means colour, determines the best solution for the ordered evolution of society and the Aasrama, for bringing forth the best qualities of the individual man. The sole object of these two schemes, is to avoid conflict in the life of society. Manu may be said to be the father of all social thinkers, the first to have conceived the theory of "United States of Social Federalism" and a plan for a perfect and well organised society of Maanavaas.

*"Chathurvarayam mayaa srustham
guna karma Vibhaagasah."*

Sree Krishna says, "The system of four Varnaas was created by me in accordance with the qualities and actions." The qualities referred to here are the temperaments inherited by birth by each individual. They are called the Saatwika, Raajasa and Thaamasa temperaments. The Saatwika temperament is purifying, illuminating and wholesome. The Raajasa temperament manifests itself in the form of covetousness, activity, passion and ambition. The Thaamasa temperament is of the nature of non-illumination and ignorance. It is manifested through inattention, sloth and sleepiness.

Satya corresponds to thought, Rajas to action (Karma) and Thamas to desire (Ichcha). The dominance of this or that quality in a man's constitution is explained as a result of his past Karma or the life lived by him in the previous states of embodiment. The four Varnaas of Braahmana, Kshatriya, Vaisya and Soodra are based upon these natural qualities or temperaments.

Peacefulness, self-control, austerity, pnrity, forgiveness, wisdom, insight and faith in God are the churacteristics of the life of a Braahmana.

Valour, heroism, courage, skill generosity, masterfulness and fighting to the bitter end, without tunning away from any battle constitute the essential characteristics of a Kshatriya.

Agriculture, cattle breeding and commerce make up the natural occupation of the Vaisya in life.

And the work of physical labour and personal service is that for which the Soodra is understood to be naturally qualified.

A little thoaght will clearly show to ns at once that in the apportionment of work to Vornaas or castea, we have evidently implied that life of the Braahmana has to be almost absolutely Saatwika in character, the life of the Kshatriya to be dominantly Raajasa and much less strongly Saatwika, the life of a Vaisya to be largely Raajasa and aery feebly Saatwika and the life of a Soodra to be dominantly Thaamasa and only slightly Raajasa on occasion.

Hereditary quallties and qualities acquired through environmental conditihns such as educational facilities are accepted to have a strong influence in moulding human character and in improving human capacity. Although caste by birth continues to command respect, caste by qualities was not unknown. Viswaamitra was a Kshatriya by birth and he became a Purohit. Bhaaratwaaja was a Brahmin by birth and lived as a Kshatriya in the famiily of Bharatha. The Mahaabhaarata npholds throughout caste by qualities and not caste by birth. Even in modern times, Sree Baalgangaadhar Tilak was a pure Braahmin by birth, but lived mostly the life of a Kshatriya. Mahaathma Gandhi though a Vaisya by birth led the life of a Braahmana. The ideal to be aimed at by all the members of all castes is to become Braahmanaas by qualities in order to render selfless service to humanity. The solution is not by bringing down the higher but by raising the lower up to the level

of the higher. There is ample evidence in our country that many attempts were made on these lines. Nothing prevents any caste from declaring that they all are Braahmanaas because each caste is autonomous and is exclusive of the other. The whole purpose of the Varnaasrama Dharma is to provide for the healthy growth of society and of the individual. When this principle is forgotten it results in disorganisation and disruption of the society. Aayurveda supports the Varnaasrama Dharma.

The fall of the high-souled Braahmana and Kshatriya, who are the intellectual and the brave leaders of the country, has really brought about the fall of the culture of Hindustan.

*"Pradhaanah dharmam utkranya adharmena
prajaam pravarthayanthi."*

(Charaka Vimanna-3.)

"The Important people (Pradhaanah) the leaders themselves transgress the Laws of Dharma and lead others to Adharma—unrighteous ways.

"Tayoryonih prajna - Aparaadhayeva."

"The cause of this again lies in the faulty state of their minds described above as greed, anger, pride etc.

Simple living and high thinking which were the guiding principles of the Braahmanaas were given up in favour of luxurious life. They neglected to do their primary duties of studying and teaching—Adhyayana and Adhyaapana.

STRUCTURE OF THE BODY POLITIC

The doctrine of Chaaturvidhatwa, which insisted on the recognition of the oneness of the body politic and of the division of labour in a manner suitable to robust growth of society as a whole, was misunderstood. The universe consists of physical, mental, intellectual and spiritual divisions as illustrated by minerals, plants, animals and men. Similarly the individual man has a physical, mental, intellectual and spiritual body. The body politic

or society also has the physical, mental, intellectual and spiritual portions of its own body. The Soodra represented the physical, the Vaisya the mental, the Kshatriya the intellectual and the Braahmana represented the spiritual forces of the body politic. The former forms the larger and the latter the rarer portions of the body as in the Universe. The physical portion (labour) represented by the Soodra is approximately seventy per cent of the total population. The intellectual or the diplomatic, including the agricultural, form twenty per cent of the population (warriors, who protect the nation from enemies, represent but ten per cent), and the spiritual or the Braahmana represents only two per cent. This proportion is, as it should be, consistent with the needs of each class. However much one may desire, it is impossible to level down these differences which are due to nature (Guna and Karma). The Hindu did not attach any superiority or inferiority to any one of the above classes or Varnaas as they always recognised that they are all essential limbs of one and the same body or person. One limb is as useful and as important as the other. They are all the limbs of Brahma (Purusha Sooktha).

The whole scheme of the division of Varna is conceived in the idea of sacrifice (Yajna)—sacrifice of the self for the common good. The lower grades are to be sacrificed to serve the best interests of the higher so that the higher may grow to the best advantage of the whole body, namely the universe.

This is the law of survival of the fittest. The minerals are to be sacrificed to feed plant life and the plant life is sacrificed to feed animal life. The lower animals to feed man and the lower man to feed higher man. This is the essential law of Swadharma. It is the law of progression.

VARNA SANKARA

The four departments of state, the teaching department represented by the Braahmana, the administrative department represented by the Kshatriya, the economic department represented by the Vaisya and the labour department represented by the Soodra should receive equal attention in the body politic in order that the State may be prosperous and long-lived. When there is Varna Sankara

i. e, when any one of these departments is neglected or when there is over-crowding in any of these departments, disruption of society is sure to follow. Professional rivalry, jealousy, exploitation of the weaker, oppression, starvation, discontent, war and disease are the usual consequences.

MUTILATION OF BODY POLITIC

The body politic was thus cut and mutilated and each bit was allowed to grow independently like the pieces of amoeba in the mud. Each part was allowed to go without any care or responsibility for the growth of the whole. Selfishness prevailed everywhere. The Braahmanaas kept quiet when the other members of the society were undergoing degeneration and so was the case with the others when the Braahmanaas were degenerating.

In this state of mutilation and confusion, the foreigners found many intelligent slaves—because they sold themselves to the foreign master and bartered the country for the sake of their own convenience. The Braahmana was preferred for service because of his merit in serving his new master faithfully, as he did under the Kshatriya master of old. Thus the bane of political serfdom together with the attendant evils of the new system of education was set upon Hindu society like a horrible. Generations of quixotic cultural hybrids raised their heads like mushrooms all over the country. They were neither Indian nor English in their tastes, temperament, intellectual out-look and ways of life. They had scarcely any faith in their forefathers and their hoary culture and they deemed it wise to set a premium on aping though imperfectly, the English who had appeared in the role of their political masters and intellectual guides.

ILLUSION PASSES AWAY

But this was not to be. India escaped the impending crash almost by a miracle. Something happened beneath the surface of things, perhaps the Divine will flashed and India began to show unmistakable signs of a spiritual awakening. "The only consolation is the spirit that never failed the nation percolated the soul of the Hindu as well as the

Musalmaans through the innumerable Tols, Gurukulaas and Muktab village schools so wonderfully efficient and pervasive in character that they put to shame the record of our bureaucratic primary education a century later in date." Towards the second quarter of the 19th century while India was about to lose herself completely in the cultural welter, suddenly she found her feet and wanted seriously to assert herself. The vitality that had been lying dormant deep in the heart of the nation under the spell of enchantment was braced up and marshalled against the heavy odds that had been out to crush its cultural existence. This revolt of the instinct for self-preservation had the desired effect. The hypnotic spell of foreign civilisation began to recede slowly but steadily before a rising wave of self-consciousness of the Hindus. Mighty movements of socio-religious reforms sprang up one after another to resuscitate the ancient culture of India and lead her once more to evolve a glorious future.

Maharshis (great seers of truth) are born in Hindustan from time to time. Sree Raamakrshna Paramahamsa, Raaja RaamMohan Roy, Sir J.C. Bose, Sri Baalgangaadhar Tilak, Arobindo Ghosh, Rabindranath Tagore and Mahaatma Gaudhi are such Maharshis. To them truth is self-revelation as the light that shows it self, They are Trigunaateetha, transcendental—untouched by Raga and Dwesha, desire and hatred.

Sri Raamakrishna Paramahamsa proclaimed the superiority of Adwaita Vedaantaa, the essential teaching of which is universal brotherhood. He stressed the importance of the Upanishadic teachings that materiality, which is the common enemy of the world, should be conquered and that love instead of hate should be our guiding principal. "Even age-long darkness," he said, "disappears as soon as light is brought in. We must love each other and do good to others because we are all one —beings made up of one stuff." That is what Vedaanta also teaches us.

GANDHIJI'S VIEWS ON VARNAASRAMA D H A R M A

From the time Gandhiji came to the scene, he augmented his Political movement by his spiritual researches and devotion. Almost

all the features of Hinduism that were discarded as weeds by the previous reform movements were clearly explained as being of indispensable utility. Even restrictions as regards marriage and dining within the hereditary Varnaas were not disregarded by him. But the times were such that rules of untouchability laid down by our religion were being exploited by the British State, the Christian missionaries and the Muslim politicals to serve their own selfish ends. It was in such an atmosphere that [Gandhiji] condemned it. Barring his views on untouchability and few such other points, his views on Raamaayana, Raamanaama Varna Dharma, Ahaara Niyama and definition of God are such that the most faithful Hindu cannot but profit spiritually by digesting them.

The following extracts from Young India may go a long way in comprehending our socio-religious structure.

It may be pertinent to note here that Gandhiji is said to have changed his views on many points in his life; but we do not know whether he changed his opinions on this point. The extracts hereunder are reproduced not for the reason that they carry the weight of Gandhiji's opinion, but for the reason that they are a clear exposition, as has been already stated, of the religious traditions handed down to us by our forefathers or, in other words, of the Indian way life.

"Varna means pre-determination of the choice of man's profession. The Law of Varna is that a man shall follow the profession of his ancestors for earning his livelihood. Every child naturally follows the "colour" of his father or chooses his father's profession. Varna, therefore, is in a way the law of heredity. Varna is not a thing that is superimposed on Hindus but men discovered the law for themselves. It is not a human invention, but an immutable law of nature—the statement of a tendency that is ever present and at work like Newton's law of gravitation. It was given to the Hindus to discover the law. Hindus by their discovery of this irresistible social tendency have been able to achieve in the spiritual field what no other nation in the world has ever achieved."

"I swear by the Bhagavat Geetha because it is the only book in which I find nothing to cavil at. It lays down principles and leaves you to find the application for yourself. The Gita does talk of Varna being according to Guna and Karma, but Guna and

Karma are inherited by birth. Lord Krishna says that all Varnaas have been created by Him—"Chathur varnyam mayaa srushtam" (that is I suppose by birth). The Law Varda is nothing if not by birth."

"Varnaasrama Dharma itself is a unique contribution of Hinduism to the world. Hinduism has saved us from Bhaya i. e., peril. I remain a Hindu because Hinduism is a Heaven which makes the world worth living in. From Hinduism was born Buddhism."

"Just as in the west they have made wonderful discoveries in things material, similarly Hinduism has made still more marvellous discoveries in things of religion, of the spirit, of the soul. But we have no eye for these great and fine discoveries. We are dazzled by the material progress that Western science has made. I am not enamoured by that progress. After all, there is something in Hinduism that has kept it alive up till now. The reason why it has survived is that the end which Hinduism set before it, was not development along material but spiritual lines."

"Among the many contributions, the idea of man's identity with dumb creation is a unique one. To me cow worship is a great idea which is capable of expansion. Its freedom from modern proselytisation is also to me a precious thing. It needs on preaching. It says 'live.' It is my business to live, and then we will leave its influence on the ages. Then take its contribution in men; Raamaanuja, Chaitanya, Raamakrishna, not to speak of the more modern names, have left their impression on Hinduism is by no means a spent force or a dead religion."

"To-day Varnaasrama Dharma and Hinduism are misrepresented and denied by its votaries. The remedy is not destruction, but correction. Let us reproduce in ourselves the true Hindu spirit and then ask whether it satisfies the soul or not."

ABJURE GREED

In our opinion any institution that has a useful purpose to serve will survive. The purpose of Varnaasrama Dharma is not to further social pride but it is an allotting of functions to hereditary groups, which allotment with its necessary restrictions in food and allied Aachaaraas, goes a great way in producing collective equanimity.

The system of Varnaasrama Dharma, if duly regulated, can bestow the highest amount of good on the largest number of persons more than our social ideologies, if backed by one or two important injunctions, so that it can work not only smoothly, but also fructify to the fullest extent. By Aparigraha is meant that every man should take from nature only so much as is required for his life in this world. Any amount of luxury, whether in clothing, food or accommodation is, according to our Saasthras, equal to theft from nature. Any exception to this rule should be only to the extent that every man should feed at least a single person and a cow every day before he feeds himself and his family. Such a course of conduct, when propagated and regulated, would usher in a state of society where the field labourers will envy neither the administrator nor the scholar, either as regards clothing or accommodation which are the apparent demonstrations of inequality. An Aashrama of a rishi was not one to be envied by a dweller in the hut. If every man realises his duty of feeding another needy person, it will go a long way in solving the problems of the world's old, crippled and destitute: Government may help in this direction by imposing restrictions on the production of gaudy and costly dress materials, maintaining even standard in cloth and rationing the same. This together with the following of the same policy as regards housing may also solve many a social problem in India.

Further the very idea of raising the standard of living now-a-days, placed before public, will in itself have the most injurious effect on society, India is fortunately the country where one can have the cheapest living. "Raising the standard of living" means tempting an individual to take to more luxuries and ultimately leading him to real poverty, in spite of increased production. Production should surely increase by all means. But by maintaining our minimum standard of living, we ought to secure a permanent surplus of necessities which can be distributed to such parts of the world as are really in need of them.

CASTE ARROGANCE OUT OF PLACE

As regards Nirahambhavana, feeling oneself more humble than the Chandaala and other creatures, and realising that the ray of God

is immanent in every creature, one can surely be relieved of the arrogance of caste or race, which is the worst impediment to the smooth working of the caste system. There was a high caste non-Brahmin, a selfmade labourer in ripe old age successfully managing a family of thirty or forty souls, who was usually addressing even his pariah servant in the most respectful terms as he would a Government officer or scholar. This is within our personal knowledge.

EMOTIONS ARE DISEASES

Emotions like anger and greed are considered as diseases in Hindu philosophy as also in Āyurveda.

*"Ragaadi rogaan satataanu shaktaon
Ashesha kaaya Prusrityaanaseshaan."*

(Vaagbhata).

Ragaadi diseases are natural enemies of every being. They permeate in every living cell. They are everywhere and at all times. It is knowledge of the Eternal Truth, i. e., the realisation of God that can cure diseases permanently. He who knows the truth is a Braahmana. The Braahmana was again born in Hindustan in the incarnation of Sree Raamakrishna Paramahansa on the banks of the Ganges. He was Sree Krihna and the Sankaraacharya of the 19th century. The Vedaanta philosophy of universal brotherhood ripened in him. He could not hide himself in mystic contemplation in caves or sit statue-like on a river bund but worked with all his might for the world around him. He brought together a band of young men under the command of Narendranath Dutta, the famous Swami Vivekananda of later days.

SWAMI VIVEKAANANDA—HIS LIFE

Vivekaananda (Narendranath Dutta) was born on 12th. January, 1863, in an aristocratic Kshatriya family at Calcutta. As a fullfledged university graduate, he was a votary of reason and he regarded ecstatic visions as hallucinations and as creations of a diseased brain. His father died in 1884 leaving the family in debt. Barefoot, he had to wander from office to office but was repulsed

on all sides. He had to fast on many days for want of enough food to go round at home.

Gradually with the association of Sree Raamakrishna Paramahansa, he succeeded in obtaining transcendental union with the Absolute Reality through Nirvikalpa Samaadhi. He became one with the Supreme Braahman. One day at the suggestion of his master, he prayed to the Divine Mother Kaali at the Dakshineswar Temple.

"From that day, when he perceived the divine presence of Kaali in the temple and experienced the ecstatic and exalted mood of bliss and illumination that followed, he had the conviction that it is the heart that reaches the goal, up to the end of his life..... A pure heart sees beyond the intellect, it gets inspired, it knows things that reason can never know. The pure heart is the best mirror for the reflection of truth. As soon as it is pure, all truths flash upon it in a minute and that what we really want is head and heart combined. Thus the confirmed votary of pure reason grasped the value and significance of the spiritual intuition of a pure heart which alone can unlock the gate of the unseen reality. His reason yielded to faith; his domineering intellect became a submissive and faithful ally of his pure heart; and it was this wonderful alliance that made Vivekaananda what he was. From this day, he became a new man and practically started on a new career. His atheistic reactions were over and his faith coming from within the depth of his heart coloured and controlled all his thoughts, words and deeds.

By his visits to Western countries he raised the status of Hindustan at one stroke and forever. Swami Vivekaananda in his European tours established the superiority of Adwaita Vedanta over all other philosophies of the world.

VEDAANTA—THE SCIENCE OF TRUTH

Vedaanists proclaim God to be the cause of all causes. The finer state is the cause and the grosser state is the effect. Modern science tells us that things that are destroyed only go back to their finer forms. Vedaanta tells us that the case with the universe as a whole is the same. After each cycle, all gross manifestations return to the final state (i. e.) the primal substance. All things of

the universe in the form of motion, vibration, thought resistance, object, etc are various modifications of that primal substance. The modern scientists know only evolution but not involution. The Vedaantists have gone a step further in the quest of truth. They assert that evolution presupposes involution. The whole series of evolution from the protoplasm to the perfect man involves one intelligent substance. It is the same throughout the process of creation as well as before and after it.

The intelligence which is involved (hidden) in the beginning becomes evolved into the world of names and forms. This cosmic intelligence (Chit) is the Supreme Reality. It is called Sad Chit Aananda—Existence—Knowledge—Bliss—all in One. It is God.

Rightly has Swami Vivekaananda said "You and I are little bits, little points, little channels, little expressions all living inside the Infinite Ocean of Existence—Knowledge—Bliss. The difference between plants and stones is not in kind because everyone from the highest angel to the lowest particle of matter is but an expression of the one Infinite Ocean and the difference is only in degree. It is the immanent principle that pervades all forms of matter and energy and apart from it nothing has a reality of its own-

"What our country now wants" said he, "are muscles of iron and nerves of steel, gigantic wills that nothing can resist which can penetrate into the mysteries and secrets of the universe and will accomplish their purpose in any fashion, even if it meant going down to the bottom of the ocean and meeting death face to face, That is what we want, and that can be created, established and strengthened by understanding and realising the ideal of the Adwaita and the ideal oneness of all." And again "Let me tell you that we want strength, and every time strength. And the Upanishads. are the great mines of strength. Therein lies strength enough to invigorate this whole world. The whole world can be vivified, made strong and energized through them. They will call with trumpet voice upon the weak, the miserable and the downtrodden of all races, creeds and sects to stand on their own feet and be free, Physical freedom, mental freedom and spiritual freedom are the watch-words of the Upanishads. Teach yourselves, teach everyone his real nature, call upon the sleeping soul to see how it awakes, Power will

come, glory will come, goodness will come, purity will come and everything that is excellent will come when the sleeping soul is roused to self-conscious activity."

Swami Vivekaananda's exposition and his great triumph at the Parliament of Religions held in Chicago on 11th September, 1893, is a great national event for Hindustan. It is one of the turning points in the history of this country. He gave a new emphasis and power to the central truths Hinduism, Religious toleration which is a tenet of Hinduism, is emphasised by Swami Vivekaananda in his great speech at Chicago,

PARLIAMENT OF RELIGIONS—CHICAGO

"The Swami's majestic appearance, expressive of virile manhood combined with his strikingly attractive apparel, made him conspicuous among the oriental delegates. He waited till the end of the day to take the last turn of making a short speech by way of announcing himself before the great assembly. As he rose to speak, admiring and curious eyes were fixed upon the stately gestures of the Swami with black hair, large and lustrous eyes, red lips and olive complexion set off by a big yellow turban and flowing ochre robe, drawn in at the waist by an orange cord. He opened his lips to accost the audience endearingly and addressed as, "Sisters and Brothers of America" and he was overwhelmed by deafening cheers from all corners of the hall. Silence followed and Vivekaananda poured out his heart. Bereft of cold formalities, rigid dogmas and hollow, stilted or illusive phraseology, his harmless and spontaneous speech proceeded from the fullness of his heart and verily 'he spoke like one in authority.' The surging stream of spirituality of endless love for God and edified humanity of universal brotherhood in all religions—the stream that had its birth on the snow-capped heights of the heavenly life of Raama-krishna and had descended to the immaculate heart of his chosen disciple, suddenly broke through all the barriers and gushed out in a torrential rush of apostolic love and wisdom. The house was flooded by waves of spirituality. The enraptured audience listening to the age-old message of unbounded catholicism of the Hindu seers, saw a new light beyond the misty hedges of sects, communities,

churches and denominations. Many eyes were opened, many souls were stirred and the speaker was greeted by a fitting and unique ovation"

He declared with all the emphasis that he could command. The Christian is not to become a Hindu or a Buddhist nor a Hindu or a Buddhist to become a Christian. But each must assimilate the spirit of the others and yet preserve his individuality and grow according to the law of growth. If the Parliament of Religions has shown anything to the world, it is this. It has proved to the world that holiness, purity and charity are not the exclusive possessions of any church in the world and that every system has produced men and women of the most exalted character. In the face of this evidence if anybody dreams of the exclusive survival of his own religion and the destruction of the others, I pity him from the bottom of my heart and point out to him that upon the banner of every religion will soon be written in spite of his resistance, "Help and not fight, assimilation and not destruction, harmony and peace and not dissension."

REFORM MOVEMENTS :

BRAHMA SAMAJ

The earliest of reform movements was the Brahma Samaj founded in the third decade of the 19th century by Raja Ram Mohan Roy, the first great patriot and reformer of Modern India. He hailed with delight the Upanishadic texts on the formless Brahmin without attributes and perhaps he felt relieved to find that the view of God came almost in line with the concepts of Islaam and Unitarian Christianity. The gates of the Samaj were open to all men irrespective of caste or community or nationality.

The sense of equality and liberty awakened by the system of education was given a rather free play in remoulding social customs. The Brahma Samaj was solid for the emancipation of women from all forms of social iniquities. It was up against early marriage and forced widowhood and worked intrepidly for female education on modern lines. Later on it launched a crusade against the caste system and succeeded in banishing it altogether from the Brahma fold. Under the guidance of its brilliant leaders like Raja Ram Mohan Roy, Maharshi Debendranath Tagore and Keshub Chandra

Sen who came in close succession, the Samaj passed through several phases of a highly useful career. It was primarily a Bengal movement with its headquarters in Calcutta, the then metropolis of India and had very few followers outside this province.

In its conception of its religious faith as well as social reform, the Brahma Samaj leaned at times to a considerable extent, on exotic ideals. From its very inception, it bore the stamp of western Christianity. Raja Ram Mohan Roy borrowed freely from Protestant Unitarianism to gloss over his Upanishadic creed and Keshub Chandra Sen went so far as to seek the very core of the Brahma creed with the christian ideals. Social customs also came to be flavoured rather richly with spices of Westernism. This frenzied rush for foreign religious sentiments and social habits made the Brahma Samaj alien to Hindu traditions.

A A R Y A S A M A J

When in the seventies of the last century, the Bhrama Samaj of Bengal under the leadership of Keshub Chandra was about to be sucked into the maelstrom of Christian ideals, up rose from another corner of India, a powerful religious movement that had no soft words for anything foreign. It came as a bold and straightforward challenge against the whole host of Western influence, materialistic as well as religious. Through this movement, India asserted herself once more and this time gave a free vigorous and absolutely uncompromising expression of some of her own religious ideals. When she was almost cornered by the currents of modernism, she turned round and took a bold look on the solid rock of her own ancient ideals.

This was the Aarya Samaj movement launched in 1875 by Swami Dayaananda in Bombay. The sponsor of this movement, like all traditional Hindu reformers, belonged to the monastic order. He was a thoroughbred Hindu sanyasin, vastly erudite Vedic scholar and a thundering polemic of the Indian type. From every point of view, he was a chip of the old block and as such, he differed widely from the Brahma leaders who were intellectuals of the Western type and who went in for finding a half way between Hinduism and modern thoughts.

He translated and interpreted the Vedaas according to his own lights and stuck to his own view of the true Vedic religion with passionate loyalty. In his religion, there was no room for the Absolute Braahman of the strict monist nor the dualist's object of worship with various names and various forms. His iconoclastic zeal very naturally compelled him to walk out and make room for the Aarya Samaj outside the precincts of the Hindu society.

This religious movement also was accompanied by sweeping changes of social customs. The caste system as a religious institution was abolished, the monopoly of the Braahmans over the Vedas was denied, women were liberated from a number of social disabilities. Besides, enthusiasm for a wide range of philanthropic activities including the spread of education, became a remarkable feature of the Aarya Samaj. All over Northern India, especially in the Punjab, this new creed spread like wild fire and in the course of a few decades, brought several lakhs of followers within its fold. Thus has the Aarya Samaj repelled from an extensive area the disastrous inroads of foreign culture and thereby recorded a chapter of momentous achievement in the cultural history of this land.

THEOSOPHICAL SOCIETY

The Theosophical Society was started in New York in 1875. Theosophy is an interesting combination of mysticism, rational philosophy and scientific ideas. Madame Blavatsky, a Russian lady, and Colonel Alcott, an ex-army officer, were notable among the founders. Drawing profusely from Buddhism and Hinduism. Theosophy has an oriental outlook and succeeded in making converts in the West by thousands. This novel creed caught the fancy of a group of enlightened Indians and through the energetic efforts of Mrs. Annie Besant, who made India her adopted home, safeguarded Hinduism against the inroads of atheism and Christianity, particularly in South India. Annie Besant fought fearlessly and suffered persecution for the establishment of Home Rule in India and she was responsible for advancing the country a step further towards independence. Theosophy did not go in for any drastic changes in social customs. One could well remain within the

Hindu fold and yet subscribe to Theosophy, The Theosophical Society contributed substantially to revive the faith of the enlightened Hindu scriptures with translations.

SCIENCES AND ARTS IN HINDUSTAN - THEIR OBJECT

The sciences and arts of India were divided into 32 Saasthraas and 64 Kalaas. The Saasthraas (sciences) deal with acquiring accurate knowledge and the Kalaas (arts) deal with the application of the science to arts. The practice of the art without the scientific knowledge would be imperfect and similarly mere study of science without sufficient practical application would be useless. He who is not perfect in both is compared to a bird with only one wing or to a chariot deprived of one of its wheels. The knowledge of the Saasthraas requires close study of the books but in the case of a Kaala, book knowledge is not so necessary. Even a dumb person may be an expert in his art by a gift of intuition or by continued practice.

*"Vidyaa hyananthaascha kalaa samkhyaatum naivasakyate.
Vidyaa mukhyascha dwatrimsa chhatussastih
Kalaasmritaah yadyatsyaad vaachikam samyakkarma
vidyaabhi sanjnikam*

Sakto mookopi yatkartum kalaa samjnaatu tatsmritam.

EDUCATION ROUND THE CRAFT

In India, all the arts were taught round the craft and not so much through books. We now see so many huge temples and wonders of Hindu architectural art scattered throughout the country. The engineering colleges where these arts and crafts were taught existed in the temples or the architectural structure themselves. The Gurukula system was followed even here and it was adapted suitably to each craft. Indian system of education was education through work, something quite different from mere book education. The science and art of Aayurveda was in this manner conserved in spite of all vicissitudes through the Gurukula, which taught the art and the village vaidyaas, who practised it without any break in the traditional Sampradaaya.

THIRTY - TWO SCIENCES

The thirty-two sciences are :-

1. Rig Veda, 2. Yajur Veda. 3. Saama Veda and 4. Adharvana Veda—the four Vedaas, 5. Aayurveda. 6. Dhanur Veda, 7. Gaandharva Veda. and 1. Thanthraas (Aagamaas)— the four Upavedaas, 9, Sikshaa, 10. Vyaakaranam, 11. Kalpam, 12. Niruktam, 13. Jyotisham, 14. Chandas, the six Vedaangaas, 15. Meemaamsa, 16. Tharka (Nyaaya-Vaisheshika). 17. Saankhya, 18 Vedaanta, 19 Yoga, —the five Saasthraas. 20. Ithihaasa, 21. Puraana, 22 Smrithi, 23. Naasthika matha, 24. Artha Saasthra. 25. Kaama Saasthra. 26. Silpa Saasthra, 27. Alankaara, 28. Kaavyas, 29. Desabhaashaa, 30. Swarokthi, 31. Yavanamatha, and 32. Desaadi Dharma (customs & habits of different places and times)— The thirteen other Saasthraas or sciences.

THE SIXTYFOUR KALAAS

The Kalaas or arts numbered sixtyfour. These Kalaas were divided into 3 groups: Group-A. Gnaanaasraya—concerning knowledge; Group-B. Karmaasraya—concerning work or profession and group-C. Dyoothaasraya—concerning games and pastimes intended for recreation.

A study of these Kalaas was compulsory, in the curriculum of enlightened girls in ancient India. Vaatsyaayana says, "The king's daughter or the daughter of a nobleman well-versed in these arts will have her husband under her sway even in a harem of thousand women. A woman gifted with these arts will by these means, live comfortably even when her husband is in exile or when he is suffering from a great trouble or when she has become a widow or when she is compelled to live in a foreign country." These arts were taught to a girl before her marriage and if they were to be taught after marriage, it should be done with the permission of her husband or at least with his knowledge. practical training in some of these subjects was given by employing teachers in whom they had great confidence. The following is a list of teachers fit for such purpose in order of their preference.

1. Dhaatreya :- daughter of her nurse, who was brought up with her and possesses proficiency in the subjects; 2. Sakhi :- a trusted woman friend, who is free in her conversation with her ; 3. Savayaascha Maatruswasa :- Mother's younger sister of the pupil's age ; 4. Vriddha Daasi :- An elderly woman servant, who is trusted and who is to the girl like the younger sister of her mother ; 5. A nun proficient in these arts; and 6. Girl's own elder sister. (1-3-15).

ANGA KALAAS (ESSENTIAL ARTS)

1. Geetha - singing or vocal music; 2. Vaadya - playing on musical instruments; 3. Naatya - dancing; 4. Aalekhya - painting; 5. Viseshakachhedya - the art of beautifying the face or the toilet of the face; 6. Thandula Kusuma Bali Vikaara - this art consists of collecting seeds of various colours and decorating marble floors and plates of brass etc., with floral and other designs; 7. Pushpaa-starana - carpeting the walls with flowers of various designs or decorating works with floral designs; 8. Dasana Vasana Angaraaga - improving the shining colour on complexion of teeth, clothes, parts of the body, chiefly lips, nails and cheeks to promote attraction; 9. Manibhoomikaa Karma - constructing mosaic floors with gems, decorating special rooms in the house, by studding the floor with precious stones of various colours; 10. Sayana Rachana - the art of making beds according to seasons of the year and tastes of individuals; 11. Udakavaadyam - the art of playing on water so as to produce musical sounds as if from an instrument or Jalatarangam; 12. Udakaaghaatham - throwing natural or coloured or scented water at others with hands or with instruments like syringes; 13. Chitra Yoga - this is a secret art of preparing medicines for deforming or disabling rivals; 14. Maalyagrathana Vikalpa - making garlands with flowers of one or different colours; 15. Sekarakaa-peedayojanam - the art of making crowns of flowers; 16. Nepathya-prayoga - the art of selecting jewels attractively and dress according to the place, time and suitability; 17. Karnapatrabhanga - the art of decorating the ears with ornaments of flowers or ivory scrapings; 18. Ghandhayukti - the art of perfumery; 19. Booshanayojana - the art of wearing ornaments like necklaces and bangles; 20.

Indrajaala - the art of producing illusions by hypnotism or performing miracles; 21. Kauchumaarayoga - the art of increasing sexual virility and the strength of the body; 22. Hastalaaghava - nimbleness or the sleight of hands so as to deceive the audience; 23. Vichitra saaka yoosha bhakshya kriya - the art of preparing food, soups, vegetables, sweetmeats and other eatables; 24. Paanaka rasa aasavayojana - the preparation of different kinds of drinks or paanakaas; 25. Soocheevaanakarma - needlework as in making shirts, darning, manufacturing quilts; 26. Sootrakeeda - playing with strings of coloured thread, making dolls dance by invisible strings attached to them; 27. Veenaa damaruka vaadya - playing on the veena and damaruka; 28. Prahelika - the art of solving riddles; 29. Pratimaala - the art of recitation (poetical); 30. Durvaachakayoga - the art of reciting verse bristling with hard words and syllables; 31. Pushtakavaachaka - the art of reading standard works in melodious tones; 32. Netakaakhyaayikaa darsana - the art of drama, or the art of telling a story such as a novel; 33. Kaavyasamasyaa poorana - filling up blanks in verses; 34. Pattika vetra vaana vikhalpa - rattan and bamboo work; 35. Tharkukarma - making artificial appliances; 36. Thakshana - carpentry; 37. Vaastuvidya - building construction; 38. Roopyaratna pareeksha - the art of testing precious stones and metals; 39. Dhaatuvaadaa - metallurgy and chemistry; 40. Maniraagakara jnaana - polishing precious stones and diamonds, locating and working mines etc; 41. Vrikshaayurveda - Science relating to plant life; 42. Meshakukku-talaavaka yudha vikhalpa - training rams, cocks and Laavakaas (birds) to fight; 43. Sukasaarikaapralaapa - teaching parrots, doves etc., to speak human languages; 44. Ustaadana samvaarana kesamardana kausalam - the art of massage, cleaning and shampooing the hair etc.; 45. Aksharamustikaakathana - the art of speaking or writing in cipher languages; 46. Mlecchitavikalpa - the art of altering the positions of letters as in a code language; 47. Desabhaasha vijnanam - knowledge of the languages of different countries; 48. Pushpasakatika - the art of making curios such as chariots with flowers; 49. Nimittajnaanam - knowledge of cause and effect and foretelling the future; 50. Yantramatrika - constructing machinery for locomotion, and for pumping water etc.; 51. Dhaaranamaatrika - the science of memory training; 52. Sampathyam - the art of

memorising recitals and slokaas; 53. Maanaseekaavyakriya - thought-reading and poetic art; 54. Abhidhaanakosha - memorising a dictionary; 55. Chandognaanam - prosody; 56. Kriyaakalpa - Alankaara (rhetoric); 57. Chalitakayoga-the art of deception in which the voice and person are disguised. 58. Vastragopana - the art of dressing skilfully; 59. Dyoothavishesha-the art of gambling; 60. Aakarshakreedda - the art of gambling with dice; 61. Baalakreedaanaka - children's games and pastimes; 62. Vainayikijnaana - training of animals; 63. Vajayiki Jnaana-art of obtaining victory over opponents; and 64. Vyaayaamakijnaana - the art of physical exercises, wrestling etc.

The above is Vaastyaayana's classification of the 64 arts i.e., the sixty-four Angakalaas, the essential arts, which are necessary for the acquisition of knowledge, for earning a living and for recreation. In addition to the above, he gives a list of another set of 64 arts called the Paanchaalachathussashti, the fundamental arts (Moolakalaas) which relate to the sexual science only. In this list, 24 arts relate to work, 20 relate to the games, 16 to the bedroom and 4 auxiliary to sexual life—totalling 64.

Sukraneethi Saaraa and other books give separate lists of the 54 kalaas as reckoned in their respective periods.

In one list, 7 arts relate to Gaandharva Veda and include music, dancing, etc., 10 relate to Aayurveda and include preparation of medicated wines, of syrups and preparing dietary, surgical operations and blood-testing, horticulture, pharmacology, sugar refining, reducing metals from ores, converting metals into powders, preparation of mild caustic alkalies and treatment of diseases like fevers, etc., five relate to Dhanurveda and include sword play, boxing, wrestling, archery and skill in handling animals.

Among others in this list are skill in Yogaasanas, Mudraas, jewellery and pottery, engineering, mixing of paints and dyes, navigation and ship-building, rope making, diamond cutting, dairy farming, Kshurakarma (hair-cutting) washing and dyeing clothes, extracting ores, basket weaving, glass manufacture etc., and so on.

Every art that flourished in India created a new caste and thus we have 518 arts and as many castes were recognised in India, giving rise to 518 autonomous units in the society.

You will be astonished to read about the glass industry which existed in Hindustan in those days. "In another chamber was a

floor of glass tiles of bright azure blue with a few other colours—black, white and yellow - mixed with them. These tiles average 10½" square by 1½" thick and are of transparent glass, the first complete specimens of its kind, which have yet to come to light in India.....In connection with these tiles it is interesting to recall the Chinese traditions that glass making was introduced into China from North India. Probably the whole procession path round the temple of Takshasila was at one time paved with these glass stones." (Guide to Taxila, by Sir John Marshall) Specimens of these tiles may be seen at the Museum at Thakshasila, Patna and London. It is no wonder that in Mahaabhaaratha, you read of the wonderful palace built by Maaya. It was so constructed with the aid of glass of different hues that one was deluded to observe the presence of water, where there was no water really and vice-versa. This glass industry, as you can very well see now, was one of the causes of the great Mahaabhaarata war.

AAYURVEDA AS A DOMESTIC ART

In the chapter on Bhaaryaadhikarana (duties of the wife) in Kaama Saasthra, we find among others, the mention of the following arts among the duties of a wife, viz., the collection of seeds and vegetables suitable for diet and their cultivation, the collection and preservation of common herbs used in domestic medicines.

"Moolakaaluka paalankee damana

Kaamraata kairvaaruka traapusa vaarta

Kooshmaanda alaabusoorana sukanaasada

Swayamguptaa tilaparnika agnimandha lasuna

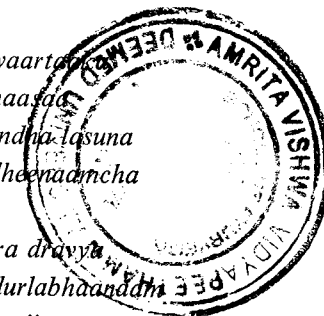
Palaandu prabhriteenam sarvaushadheenaadha

Bheejagrahanam kaale vaapascha

Tadhaa lavana sneha yoscha sandhra dravya

Katuka bhaandaushadhaanam cha durlabhaandha

Bhava eshu prachchannam nidhaanam."



Similarly we find that Aasavaas and Arishtaas were prepared under the supervision of the house wife, who had to see to their

proper use and their sale according to the needs of the family and also to keep their accounts.

*"Suraakumbheena Ma-savakumbheenaam Cha
Staapanam tadupayogah kraya
Vikrayaayuyayaa vekshanam."*

This is one of the reasons why Aayurveda has been firmly established as a domestic art in Hindustan.

HINDU DHARMA AND GREATER INDIA

These 64 arts and 32 sciences were cultivated in Hindustan as separate branches of knowledge but all these arts and sciences were so developed as to bring about a consummation of the idea of oneness of the universe and the creator. The Hindus spread the Hindu Dharma wherever they went. The greater India included the whole of Burma, and the whole of Indo-China and expanded in the East Indies as far as Philippines and in the west, it included the whole of Afghanistan then known as the Gaandhaara.

(Read the excellent articles on "The Hindu Kingdoms of Indo-China and Java, Hindu Culture and Greater India in Vol. 3-Cultural Heritage of India.")

The famous Angkor Vat, the city temple about a mile from the capital, Yasodharapura (Angkor) of Cambodia, built towards the close of the 12th century A. D. was one of the greatest and most architectural cities of the world in the middle ages. The central tower, crowning the main shrine rises 213 feet above ground level. There are three galleries, one on each terrace and the first gallery is adorned with splendid bas-reliefs depicting the court scenes and scenes from the Raamaayana, Mahaabhaaratha and Harivamsa. A point to be noted is the predominant part given to Vishnu and Rama and Krishna incarnations.

THE ART OF NAVIGATION

The Hindus were the best navigators of the world until their art and taste were actually killed by the unjust regulation of the British Government.

"The East India Company were naturally convinced that India-built ships ended only when they were wrecked or they became obsolete but they never wore out. The Company, therefore, in the first instance, imported an English builder, to wit, Mr. Warrick Pelt, in 1668 and he built two ships at Surat for them, the equipment and stores for which were brought over from England. He established a yard at Surat which was maintained upto 1935 and then transferred to Bombay along with its foreman, Mr. Lowjee Nuserwanjee, whose family ultimately became the master shipwrights and shipbuilders of the company and held that position for a good part of a century and a quarter.

"In the year 1814, the Parliament laid down that Indian sailors though they were subjects of His Majesty of England shall not be deemed to be British mariners and any ship even though British, which had not on board three fourths of its crew of English mariners or seven British mariners per 100 registered tons, would be liable to forfeiture and that no ship was to enter the port of London whose master was not a British Mariner." Thus a national industry, art and trade were destroyed.

RELIGION AS A SCIENCE

We have, so far traced the cultural history of Hindustan between the secular and the spiritual which are wonderfully blended to a harmonious whole. Even the care of the physical body is looked upon as a sacred duty, necessary for spiritual welfare.

Let each individual in society endeavour to realise his own spiritual welfare, and then it must happen that his own personal interests cannot run counter to the interests of others. The ultimate goal being the same, the paths followed by separate individuals, though different according to the special environment of each, are bound to be convergent and there should be no occasion for conflict.

In his relation to the rest of society, every individual, according to the Indian scheme, lays stress upon his duties, his Dharma by which he is to secure his own advancement and thus may be distinguished from the European, who emphasizes his right. Of course, the one implies the other but while right looks to the acquisition

of power and comforts for the physical self, the path of duty lies through the discharge of debts which a person owes to all about him—to his fellows in the community, to his forefathers and to all his fellows in society and to all sentient beings. At his very birth, a Hindu is born charged with liabilities, as owing a debt to the Gods, to the Rishis, to the forefathers, to men and to other living creatures.

Indian life is in all aspects bound up with religious observances calculated to bring about a realisation of the ultimate truths, by a graduated course of mental and moral discipline. The human body is treated as one whole, i. e., body, mind and soul, all as one entity. Humanity is similarly conceived as a whole and the Universe as a whole.

We have already stated that all quarrels, wars and epidemic diseases arise on account of Adharma, which starts in the selfishness of individual leaders and which infects others and thus affects the growth of communities and nations. Whatever they—individuals, communities or nations—enjoy or suffer is the consequence of their own Karma (action), the fruit of which they alone have to reap.

In order that Dharma (duty) may again be a living force helping humanity in the attainment of their aspirations, it is necessary that the existing religious knowledge should be studied as a science. Such studies should be guided by an accurate knowledge of the problems of human life and a careful analysis of the human mind.

We are not to laugh or weep over the actions of men but we should simply understand them and take an account of every detail, as we do when we conduct experiments and observations in other sciences. We should study carefully men's affections and passions such as desire, hate, anger, arrogance, pity and other disturbances of the mind. We should regard them not as vices, but as properties belonging to particular states of consciousness. They are symptoms of certain diseases. They sometimes cause intense excitement, restlessness and unconsciousness just like fever or other diseases.

Therefore, a thorough knowledge of the religious and emotional life of the people and their practices should form the background of the study of the medical student and should be a

guide to him as a scientist. He has to deal with the faiths, habits and customs of the people and their relative importance according to the time and place.

Ayurveda did not, therefore, divide the studies of social, religious and humanitarian subjects into separate and water-tight compartments but included rightly all these in the curriculum of the medical student. The reader will know more of it as he proceeds in his studies.

MODERN PERIOD

The modern period may be said to begin from 15 th August, 1947 with the attainment of the independence of India. The whole world is looking to India for guidance in political as well as spiritual matters.

The salvation of man does not lie in the different nations quarreling with each other like the brutes of the jungle. The Western civilisation subordinated learning to politics. The knowledge of the sciences was prostituted to serve as a handmaid of the war machine. A true Braahmana has to acquire knowledge for its own sake (Nisphaala or without any idea of the fruit of such action) and should propagate that knowledge without expecting any remuneration. Adhyayana and Adhyaapaka are his legitimate duties. The ultimate aim of the study of all sciences (Darsanaas) was the acquisition of Praja, a mental flame which enables men to know God. When this truth is learnt, the equality of all living creatures and their brotherhood is firmly established.

*“ Sarva Bhootastha Maatmaanam
Sarva Bhoothaani Chaatmani
Yeekshatee Yoga Yuktaatma
Sarvatra Samadarsanah.”*

(Geeta Ch. 6. Ver. 29.)

*“Vidya Vinayasampanne
Braahmane Gavi hashthini
Suni Chaiva Sva Paake Cha
Panditaa Sama Darsinaah”*

(Geeta Ch. 5. Ver. 18.)

“A man who has his vision equalised in all directions sees himself in all beings and sees also that all created beings are within himself. A Pandit (a learned man) is one whose vision is the same towards a Braahmana, who is endowed with knowledge and has humility, as towards any other animal such as a cow or an elephant or even a dog or a dog-eater.” This state of equilibrium of the mind is obtained by a Yogi like Mahatma Gandhi. His real personality with his weapon of non-violence can be understood only when this philosophic background is studied. The science of Aayurveda, true to its name as the science of life, has specialised in the subject of Ahimsa, which relates to the processes of life as a whole.

Charaka says:—“Among diverse means that exist for prolonging life, Ahimsa—abstention from injury (non-violence)—or universal compassion is regarded as the foremost of all such means (not food). Such abstention from injuring other creatures leads to merit, which prolongs life. Aayurveda regards knowledge (not meat eating) as the best promoter of the nutritions of mind and body. Subjugation of the senses (not their satisfaction) is the foremost of all means for deriving happiness. A knowledge of the Supreme Soul, Braahmana, is the foremost of all means for deriving salvation and bliss, and the practice of Brahmachaarya (living in God and not in sex life) is the foremost of all paths leading to the attainment of happy goals.” It is only the study of this science of life (Aayurveda) in its true bearing as a science that would enable one to understand its hold upon the people.

Mahatma Gandhi stood as an apostle of Ahimsa as thus expounded in Aayurveda as the sole instrument for prolonging life. He had no enemies, because he was free from partiality. He was “Dwandwaateetha”—free from the opposite feelings of desire and hate (Raaga and Dwesha). Absolute tranquillity of mind prevailed in him even when he was engaged in solving the most complicated problems.

*“Aapooryamaanam Achalapratishtham
Samudra Maapah Pravisanti Yadvat
Tatwat Kaamaayam Pravisanti Sarve
Sa Saanti Maapnoti Nakaama Kaami.”*

(Geeta. Ch. II. Ver. 70.)

Just as all water enters the sea, the shores of which are not transgressed although it is being filled on all sides, so also is true tranquillity obtained only by that person, who is entered into by all objects of sense, without disturbing his tranquillity. This tranquillity cannot be obtained by one who desires satisfaction of his senses.

He alone acquires tranquillity, who performs actions, having given up all attachment and becomes desireless and who has not got mine-ness and egoism.

*“Vihaaya kaamaan yassaravaan
Pumaanscharati nishpruhah
Nirmamo nirahamkaarah
Sasaanti madhi guchhati.”*

(Geeta. Ch. II — Ver. 71)

It does not mean that one should abandon action in order to attain tranquillity. Whereas the minds of ordinary people are confused by the hope of fruit, the mind of a man who has reached the state of perfection is not distressed by the hope of fruit. Whatever be the number of actions he has to perform, he does them remaining as peaceful as the deep sea. He does not, therefore, suffer from pain or happiness. Mahatma Gandhi was not a sanyaasin of the mendicant type. He had a dynamic personality. He moved about in the objects of sense (i. e., in worldly affairs) keeping his senses under control. All that he did was not for himself but for Loka Sangraha i. e., for the benefit of the world. He had absolute faith in the maxim “Sathyameva jayati” — “Truth alone succeeds.” India has taken up this as its sacred motto.

Almost like a prophet of the age, Vivekaananda declared that even the latest movements of Socialism or Communism would never be able to achieve their goal until and unless they took their stand on spiritual ideals. “The political systems that we are struggling for in India have been in Europe for ages. They have been tried for centuries and have been found wanting. The institutions and systems and everything connected with the political governments have been condemned as useless and Europe is restless, and does not know where to turn. It is hopeless and perfectly useless to govern mankind with the sword. You will find that the very centre,

from which such ideas as government by force sprang up are the very first centres to degrade and degenerate and crumble to pieces. Europe, the centre of the manifestation of material energy, will crumble to pieces within fifty years, if she is not mindful to change her position, to shift her ground and make spirituality the basis of her life,"

HINDUSTAN TO LEAD THE WORLD AGAIN

"This is the land whence spirituality and philosophy have again and again rushed out and deluged the world and this is the land whence once more such tides must proceed in order to bring life and vigour into the decaying races of mankind. It is the same Hindustan which has withstood the shock of centuries, of hundreds of foreign invasions, of hundreds of upheavals of manners and customs. It is the same land which stands firmer than any rock in the world, with its undying vigour, indestructible life. Its life is of the same nature as the soul, without beginning and without end—immortal and we are the children of such a country." (Swami Vivekaananda).

"Have tremendous faith in yourselves. Have that faith, that eternal power is lodged in every soul and then, you will revive the whole of Hindustan. Be ready to sacrifice — YAJNA — yourself, for the benefit of your race and for the welfare of humanity. For the Hindu, life is eternal."

Aayurveda should be taught in all schools and colleges along with Yoga and Vedaanta. There are many countries in Europe and America who have taken up the study and practice of Yoga. Aayurveda is the mirror of Indian culture. We must follow the lead given by Swami Vivekaananda and spread Indian culture to the whole world. The scope of Aayurveda is very vast. It is not merely preservation of health. Aayurveda is essentially an Aadhyathmika science. Its avowed object is to promote perfect health for the sake of the attainment of Dharma (performance of duty) Artha (acquisition of wealth). Kaama (fulfilment of desires) and Moksha (attainment of self-realisation). Treatment of diseases becomes incidentally necessary because diseases are a hindrance to human effort in reaching these four aspirations of life.

*"Dhatmaartha kaama mokshaanaam
aargyam moolamullamam
Rogaah tasya hartaarah
sriyaso jeevitaasyacha."*

(Charaka Sootra - 1-15.)

*"Gobraahmanebhya ssubhamasthu nityam
lokaah samastaah sukhino bhavantu."*

"Peace be to the Cow, and the Braahmana,
Let all the worlds be happy." *

OM SAANTIH, OM SAANTIH, OM SAANTIH

The cow is symbolic of physical strength and prosperity and the Braahmana is symbolic of mental strength and supreme knowledge of God.

CHAPTER II

PHILOSOPHICAL BACKGROUND (BHAARATHEEYA TATWA VIGNAANA)

The science of Aayurveda is based upon the fundamental sciences called "Darsanas". These form the philosophical background of Aayurveda. Darsanas include all sciences, physical, mental, intellectual and spiritual. These Darsanas were studied in India as part of the general education of every student. One has to be well-up in the Sanskrit language and then only he can study these sciences from original sources. The five compulsory subjects (Vidyas) in all universities were 1. Sabda Vidyaa—grammar and literature, 2. Silpa Vidya—manual training in arts and crafts including mathematics, 3. Chikitsaa Vidya—the science of medicine, 4. Hetu Vidyaa—logic and philosophy, 5. Aadhyatma Vidyaa—spiritual science. These formed the course of study of every student in Hindustan. Just as they should now have a certain proficiency in the English language and an elementary knowledge of natural sciences before they can proceed to medical study, so also a knowledge of Sanskrit and of these fundamental sciences (Darsanas) is necessary for the understanding of the principles of Aayurveda. In fact this premedical course was compulsory for every Vaidya in Susruta's days,

*"Ekam saastramadheeyaano na vidyaachchaastra nischayam
Tasmaat bahusrutah saastram vijaaneeyaata chikitsakah*

(S. Su. 4—7)

CHAPTER II

THREE GROUPS

By a study of a single Saastra, a man can never catch the true import of this science of medicine. Therefore, a physician should study as many allied branches of science and philosophy as possible. For explanations of truths and principles quoted from other branches of science and only incidentally discussed in the present work, the student is referred to the expositions made by the masters of those sciences, since it is impossible to deal with all branches of science in a single book and within so short a compass.

*"Nahyekasmin saastre Sakyaasarva
Saastraanaam avarodhah kartum."*

(Sus. Su. 4—5)

THREE GROUPS

Darsanas are Saastras, where well reasoned attitude of the human being towards the world is explained according to Hindus. They are mainly six, consisting of 3 groups. They are partly sciences and partly philosophies according to our modern conception. The Nyaaya Vaiseshika group deals mainly with physics chemistry and other material sciences and includes reasoning or logic. Metaphysical studies or search for knowledge of God, however, formed the ultimate aim of the study of these sastras also. Saankhya Yoga deals mainly with the mental sciences. The material aspects of study were not neglected even here.

Poorva and Uttaramaamsa relate mainly to the exposition of the Brahman (Universal Spirit). The object of Purvameemaamsa is right action (Karma Kaanda) under the supreme authority of the Vedaas. Uttaramaamsa or Vadaanta is more directly based upon the Upanishads. Its main object is to explain that there is in reality only one Existence—Non-Dualism.

The object of all philosophical studies in Hindustan has been the acquisition of the knowledge of the eternal theme of Indina spiritual thought, namely, to seek, know and realise "the one in the many."

The world 'Darsana' is derived from the root Darsa which means "to see". Darsana means seeing, looking or sight. It also means the eye, the mirror and knowledge—especially religious.

Here Darsana means a Saastra-science-knowledge or Philosophy. The Darsanas are primarily divided into 2 classes—Aastika Darsanas, which accept the authority of the Vedaas, and Naastika Darsanas, which do not accept their authority. The Aastika Darsanas are generally counted as six and are called the Shat—Darsanas. They are 1. Nyaaya, 2. Vaiseshika, 3. Saankhya, 4. Yoga, 5. Meemaamsaa, 6. Vedaanta. The Naastika Darsanas are chiefly, 1. Chaarvaaka Darsana, 2. Bauddha Darsana, 3. Jaina Darsana. There are other Darsanas like Raseswara Darsana, Paasupata, Saiva and Saakta Darsanas which were also recognised systems of philosophy in Hindustan.

NYAAYA SYSTEM

The term 'Nyaaya' means analysis. The Nyaaya system of teaching is devoted to the exposition of a system of logic and enunciation of the methods whereby truth may be ascertained by the logical process of examination and analysis. Western scholars, therefore, generally accepted it as logic and ignored the philosophical and metaphysical aspects of the teaching of Nyaaya. The system has in fact a dual object being partly a school of logical analysis and partly also of philosophical and metaphysical reasonings. Many are inclined to the view that the Greek schools of philosophy were indebted to the Nyaaya system of the Hindus.

Together with the Vaiseshika, the Nyaaya adheres to the atomic theory of the universe. But the most important part of Nyaaya is to classify and enumerate the various things in the world.

The Hindu syllogism of Gautama consists of five parts or propositions viz. (1) Pratijna - the promise, (2) Hetu - the proof, (3) Udaaharana - the illustration, (4) Upanaya - the application of the proof. (5) Nigamana - the conclusion. These are called the five Avayavas. The Western syllogism consists of only three parts of the proposition, namely, the two premises and the conclusion.

SIXTEEN PADAARTHAS

The Nyaaya school holds that the logical method of ascertaining truths was by the application of the sixteen categories of Padarthas

the topics for discussion. These topics are 1. Pramaana—means of knowledge, 2. Prameya-objects of enquiry, 3. Samsaya-doubt, 4. Prayojana-purpose, 5. Drishtaanta-illustration, 6. Sidhaanta-dogma or determinate truth, 7. Avayava-syllogism or argument 8. Tarka - confutation, 9. Nirnaya - ascertainment, 10. Vaada-discussion, 11. Jalpa - wrangling and hair - splitting, 12. Vitanda-cavilling or raising objections, 13. Hetvaabhaasa fallacy, 14. Chala-perversion or unfair ambiguity, 15. Jaati-futile objections, 16. Nigrahasthaana - conclusion or the confounding of an adversary.

The student is trained and drilled until he thoroughly understands the nature and use of these sixteen topics. Of these the first two are the chief; the others are only subsidiary and indicate the course which a discussion may take from the setting forth of a doubt to the final confutation of the doubt.

The Prameya or objects of knowledge are:—

1. Atmaa-the soul, 2. Sareera-the body, 3. Idriya-the senses, 4. Artha-the objective world, 5. Buddhi-the intellect, 6. Manah-the mind, 7. Pravritti-action, 8. Doshā-Error, 9. Pretiyabhaava-disembodied state or transmigrations, 10. Phala-the fruit or retribution, 11. Dukha- pain 12. Apavarga-freedom or emancipation of the soul.

According to Nyaaya, the soul (Jeevaatmaa) is individual in each person and separate from the body and senses. It is the seat of knowledge and feeling. It is eternal in duration (Nitya). Ichha (desire), Dvesha (aversion) Sukha (pleasure), Duhka (pain), and Jnaana (knowledge) imply the existence of soul, which is a substance (Dravya). It is the substratum, in which these several qualities reside. The soul experiences the fruit (Phala) of good or bad deeds (Karma).

The supreme soul (Paramaatmaa) is One. It is the seat of eternal knowledge, the maker or former of all things.

Moksha is deliverance from pain (Dukhadhwamsa). The soul attains deliverance by knowledge, by meditating on itself, by not earning fresh merits or demerits through action springing from desire and by becoming free from passion through knowledge of evil inherent in objects.

THE VAISESHIKA SYSTEM

The Vaiseshika System is ascribed to Kanaada.

The Vaiseshika system is supplementary to that of Gautama (Nyaaya), coinciding with it in the main, but differing from it in allowing only two methods of proof (Pramaana) i. e. 1. pratyaksha (perception) and 2. Anumaana (inference) and in its arrangement of the objects of knowledge (Prameya).

The scope of the Vaiseshika Darsana is the acquisition of correct knowledge of the reality of pain and its removal. "*Charama Dukha Dhwamsa Lakshano Mokshah Jaayati*" (Tarka Sangraha Deepika in Telugu. P. 137).

Pain may be due to internal causes or external causes. Some kinds of pain may be removed by the Vaidya temporarily or even permanently but the pain caused by fear of death can be removed only by correct knowledge of the Supreme Being.

Whoever wishes to escape from the reality of pain and whoever wishes to know the means of such escape should learn that the knowledge of the Supreme Being is the true means of such escape.

That means that without the knowledge of God, destruction of pain is not possible. Knowledge of God is obtained by Sraavana, Manana, and Bhaavana—hearing, thought and reflection on God. True Vaiseshika Siddhaanta is that Dukha (pain) will be removed by correct knowledge of the six Padarthas (categories).

Thought (Manana) depends upon inference (Anumaana), inference depends upon Vyaapti (universal proposition) and the knowledge of Vyaapti depends upon the right understanding of the six padarthas (categories). Hence the saint kanaada establishes the six categories is his ten-fold treatise called Vaiseshika Sootra. Kannada is also called by another name Kanabhaksha—which means "One who feeds on Kanaas or atoms."

THE SIX CATEGORIES

There are in this system six categories or predicaments (Padarthas) 1. Dravya-thing or substance. 2. Guna-quality, 3. Karma-action, 4. Saamaanya—community or genus, 5. Vissha-Particularity, 6. Saamaanya—The coinherence or intimate connection of

constituent parts. A seventh, namely Abhaava—non-existence or negation—was added later.

1. DRAVYA

The first category, namely Dravya, is subdivided into nine divisions 1. Prithvi—earth, 2. Aapa-water, 3. Teja—light 4. Vaayu—air, 5. Aakaasa—ether, 6. Kaala-time, 7. Dik-space, 8. Aatma-soul, 9. Mana-mind. Of these Prithvi, Aapa, Teja, Vaayu and Mana are "Anu"(atomic), the others are 'Vibhu' (ever-pervading). The atoms are round, extremely minute, incapable of division, invisible, eternal in themselves but not in aggregate forms.

They have individuality, a specific difference (Vissha), from which the name 'Vaiseshika' has been derived. Light, for example, is formed by the aggregation of luminous atoms and other substances are also formed in a similar manner. These atoms combine by twos in an aggregate called "Dvyanuka." They again combine and thus form aggregates called "Trasarenu" which comes within the range of our sight as a mote in the sun-beam. They are innumerable and are perpetually united and disintegrated and reunited and re-disintegrated by a particular unseen force called Adrishta.

ATOMIC THEORY

The followers of Kanaada are known as Kaanaadas. In their opinion, the root cause of the world is atoms. The definition of atom given by Kanaada as above, and the one given by the Western scientists is almost the same.

When after dividing and sub-dividing things, you come to the stage when division is no more possible, you have reached the atom or Parama Anu i. e. the ultimate entity. As these atoms coalesce, they acquire a new quality as the result of the union and new things are created. There are atoms of the mind and of the body and when these unite, life results.

The fundamental atoms of Prithvi have four qualities, namely, Gandha, Rasa, Roopa and Sparsa. Those of Aapa have the last three qualities; those of Tejas the last two; those of Vaayu only

the last one. In this way, the entire universe is from the very beginning filled with permanent and subtle atoms.

This is technically known as "Aarambha Vaada", the Theory of Commencement.

There is a story, that when one of the Vaiseshikas was, at the moment of his death, asked to utter the name of God, he uttered the words "Peelavah, Peelavah, Peelavah" "Atoms, Atoms, Atoms." Nevertheless, other followers of this school believed that Isvara (God) is responsible for bringing about the fusion of the atoms. They are called "Sesvara - Vaadis."

They say that the universe must have a maker because it is an effect like a jar (ghata). It is implied that the creative mind must have been created by a power possessing like qualities, but of an infinitely higher kind.

The Saankhya philosophy has put into the background the Vaiseshika theory of atoms.

This school could not satisfactorily explain how activity was first imported to atoms. They could not also explain how the rising gradation of successive evolution of life in trees, animals and man came into existence, nor could they explain how living matter was derived out of non-living matter. This was done in ancient India by the Saankhya theory of evolution.

2. GUNA

Guna, the second category, is translated as quality. The qualities are twentyfour. 1. Roopa-colour. 2. Rasa-taste, 3. Gandha-smell, 4. Sparsa-touch, 5. Sankhya-number, 6. Parimaana-dimension, 7. Prithaktva-individuality, 8. Samyoga-conjunction, 9. Vibhaaga-disjunction, 10. Paratva-priority, 11. Aparatva-posteriority. 12. Buddhi-intellect, 13. Sukha-pleasure, 14. Dukha-pain, 15. Ichcha-desire, 16. Dvesha-aversion, 17. Prayatna-volition, 18. Gurutvam-gravity, 19. Dravatvam-fluidity, 20. Sneha-viscosity, 21. Samskaara-self-reproduction (or restitution, including motion, elasticity and memory), 22. Sabda-sound, 23. Dharma-merit and 24. Adharma-demerit.

Light and heat are considered as only different forms of the same substance, so also electricity and magnetism.

The Manas (mind) is considered to be as small as an atom (Anu) and thus only one sensation is conveyed to the soul at one time. It is eternal and distinct from both soul and body, with which it is only conjoined.

Kaala (time) is inferred from the relation of priority (Bhoota) and subsequence (Bhavishyat) other than that of place. This is marked by the association of objects with the sun's revolution and is measured by Kshana, Dina, Ritu, Samvatsara and so on. Time is one of the most important factors in chemical or physical changes.

THE THEORY OF ATOMIC AGGLOMERATION

According to Vaiseshika Darsana, the whole universe is constituted of atoms. "Kaarana Guna Poorvakah Karya Guno Drishatah." The properties that exist in the causative factor are found in the resultant factor. Every atom has some special properties and the properties of a substance which is constituted of these atoms would develop the same properties as are contained in the atoms.

There are two theories explaining how these particles combine with each other. One is called Peelunaka vaada, the chemical theory, and the other is called the Pittharapaaka Vaada, the physical theory.

DIK

Dik is inferred from the relation of priority or subsequence other than that of time. It is deduced from our notions of here and there. It is marked by our association with the four directions of east, west, north and south—which again depend on the relation of the earth's movement round the sun.

We may count the directions as four, or six if we take upper and lower as two directions. But Dik or space is one—Vibhu, all pervading and eternal.

Dik or the position of atoms in space is also to be considered when their combinations and disintegrations take place. For example, nearness of substances to each other or the distance of each from the other makes a great difference in chemical combinations of different substances.

The relative importance of the positions of the atoms in space and the influence of direction (North or South Pole etc.) on them have also to be taken into account in addition to heat and time.

3. KARMA

Karma (action) is the third category. It is divided into five kinds— 1. Utkshepanam - upward movement, 2. Apakhepanam - downward movement, 3. Aakunchanam - contraction, 4. Prasaa-ranam - dilation, 5. Gamanagamanam—motion in general.

4. SAAMAANYA

The fourth category Saamaanya (community) is the source of our notion of genus. It usually denotes qualities common to many objects. This is also called Jaati. Saamaanya is of two kinds, 1. the higher or genus [Para] and 2. lower or species [Apara].

5. VISESHA

Visesha [particularity] denotes single or simple objects devoid of community. These are soul, time, place and Aakaasa and also atoms in their ultimate form. This Visesha is the distinguishing feature of Vaiseshika philosophy. Its theory and doctrine is that all substances are composed of countless minute invisible atoms, from the combinations of which all forms of substances, physical, chemical and mental, arise and from the operation of which all phenomena take place. These combinations of the ultimate atoms are merely temporary and are subject to change, destruction and alteration, so far as the combinations are concerned, but the individual atoms, of course, can neither be destroyed nor changed nor altered in their nature. These atoms are similar to the corpuscles, ions or electrons of modern Western science.

6. SAMAVAAYA

The sixth category, Samavaaya (co-inherence or inseparable connection), denotes the connection of things that in their nature

must be connected as long as they exist, as the yarn and the cloth made from it. This inseparable union is rather of an abstract nature. Examples of Samavaaya are the parts and the whole, the quality and the object which possesses the quality; action and the agent, atoms and substance, subject and object, etc., (Vaiseshika Sut. Ch. 1-11). In all these instances, there is an inseparable connection between the members of each pair.

7. ABHAAVA

A seventh Padaartha called Abhaava (negation or non-existence) was added by later Vaiseshikas. The six categories mentioned above are 'Bhaavas' (existing ideas) and the seventh is the negation of all these six. If you have no 'Abhaava', you cannot get the knowledge of that which is not a thing. Example:- the knowledge that there is no pot. The above hypothesis of things, increasing by addition of similar things and decreasing by the addition of dissimilar things and of the restoration of equilibrium by the union of similar and dissimilar things in exact proportions, is one of the fundamental hypotheses on which the science of Aayurveda is based.

NAVYA NYAAYA

The system of Kanaada Vaiseshika was later combined with the system of Nyaya and became one system. It is called Navya-Nyaya or Tarka Saastra- The fusion of the Vaiseshika metaphysics with the Nyaya epistemology was not an arbitrary or unnatural attempt at a rapprochement, but was dictated by an inner logical necessity of giving a complete philosophy of realism, with the deficiencies of each being made good in a well-rounded synthesis.

The four Pramaanas of the Nyaya system were accepted by the Vaiseshika system and the six padaarthas of the Vaiseshika system were accepted by the Naiyaayikas.

SAANKHYA

Saankhya is ascribed to Kapila whose date cannot be later than 700 B.C; but the philosophy itself is as old as the Upanishads.

The term Saankhya means correct enumeration or perfect classification.

The Saankhya is frankly dualistic. It recognises two ultimate entities, 'Prakriti' and 'Purusha'. Saankhya lays down a four-fold division of categories. 1. Prakriti or Mula Prakriti-Productive but not produced. 2. Prakriti Vikriti-Produced and productive. 3. Vikriti-produced. 4. Purushas-Neither productive nor produced.

This classification includes twenty-five principles called Tatvaas.

PRAKRITI

All the things in this world are explained as being generated by putting together two or more atoms in the Nyaya-Vaisesika philosophy (Aarambhavada-the Theory of Creation). But according to the Saankhya theory, everything is looked upon as the result of transformation within one primal substance, the Prakriti. This is called Parinamavda or the Theory of Evolution. The primal substance, Prakriti, cannot be directly perceived and its existence, like that of the atoms, has only to be inferred. This inference is based upon reflection and rationalistic explanations (Anumana) rather than authority (Sabda).

MULA PRAKRITI

The Mula Prakriti is the first cause of the Universe. It is constituted of three factors, each of which is described as a Guna. But Guna here should not be understood as meaning a 'quality'. The term Guna means here 'a component factor' or a constituent of Prakriti. The three Gunas are named Satva—roughly signified by equilibrium or harmony; Rajas—by whatever is active; and Tamas—by whatever is passive and offers resistance.

From the standpoint of the experiencing mind, Satva is described as pleasure (Sukha), Rajas as pain (Dukha) and Tamas as bewilderment (Moha); for they respectively give rise to these feelings. The Gunas are called Reals.

The Gunas, therefore, are not merely distinct from each other but are also, in some measure, antagonistic in their nature. But, the antagonism is not such as to preclude these acting together.

This is illustrated by the example of a lamp flame. The three substances, namely, oil, wick and flame, although mutually contradictory, co-operate towards a single end, when they help each other and produce a light. In the same manner, although the Gunas are mutually counter-acting, yet when they combine, they produce the whole universe as an orderly whole, which has its own laws to obey. The properties of the different objects of the universe are ascertained and described in accordance with the excess of one or other of these three Gunas.

Everything that emerges from Prakriti must, therefore, be recognised as constituted of the three Gunas—ultimate Reals. These constituents of Prakriti are said at first to be in a state of equilibrium until Prakriti begins to differentiate itself.

In the presence of Purusha, the equilibrium is disturbed and it is this disturbance that gives rise to various kinds of creation. The diversity of created objects is attributed to the predominance of one or the other of the three Gunas—predominance of Satva giving rise to Saatvika objects; of Rajas to Raajasika objects, and of Tamas to Taamasika objects.

It is just as in a game of dice; they are ever the same dice, but as they fall in various ways, they mean to us different things. Though only three in number, the Gunas thus really stand for a manifold of distinctions.

Prakriti is thus not only complex; it is all—pervasive (Vibhu); it is also undergoing change perpetually. The paper on which these lines are printed may appear to be static (not changing), but it is really changing every instant by deteriorating, at the same time, it maintains its identity as long as it lasts. A plant may grow or wither where it is. An animal may shift itself from one place to another. There may be a change of form, from birth to old age; but all these changes are included in this Parinaama or evolution.

Prakriti is also called Pradhana—the rootless root of the Universe, Avyakta—impossible to be perceived by the senses, Guna Kshobhini—that which by disturbance of Gunas causes the universe, Prasavadharmini—that which has a property of creating, Bahu Dhaanaka—that which creates many substances.

It will thus be seen that the whole of the universe emanates from Prakriti. It is the ultimate, independent and natural cause

of all things in the world. Prakriti is translated, though not accurately, by the English word "nature".

PRALAYA OR DISSOLUTION

The evolution theory of the Western scientist does not presuppose any dissolution or Pralaya. According to Saankhya, every period of evolution or Srishti is followed by a period of dissolution or Pralaya, when the whole diversity of the universe becomes latent. Prakriti, however, does not cease to be dynamic even at Pralaya, only its component parts, the Gunas, are again in a state of equilibrium, instead of acting upon one another and giving rise to a heterogeneous transformation.

PURUSHA

Saankhya recognises the existence of another independent reality called Purusha. It is the very element by virtue of which we become aware of the existence of the physical world. In other words, Purusha (spirit) is the principle for the sake of which Prakriti (nature) evolves. It is Purusha—or Purushas, because they are many—that give activity to Prakriti. Purusha is pictured as a lame man possessed of good eyesight and Prakriti as a man devoid of the sense of sight, but who is possessed of a good pair of legs. According to the tale, the lame man Purusha mounts upon the shoulders of the blind man Prakriti and together they move along intelligently, whereas separately both are unable to make any progress (Pangvandha Nyaaya).

Purusha is manifold in contrast to Prakriti and for that reason Saankhya is described as a pluralism.

Purusha is Nirguna (not complex), it is not dynamic; it has neither change of place nor change of form. It is passive while Prakriti is ever active. In itself, Purusha is a mere witness (Saakshi); like Prakriti, however, Purusha is Nitya (Omnipresent). Prakriti and Purusha virtually act as one. Prakriti represents the body and Purusha the spirit. There is no spirit without a body nor a body which functions as a living organism without a spirit. The coming together of Prakriti and Purusha is a necessary presuppo-

Of the first group the Nyaaya and Vaiseshika relate more to the material sciences. These include physics, chemistry etc. The Saankhya and Yoga relate to biological sciences and deal mainly with life in its relation with material creation. The Purva and Uttara Meemaamsa mainly deal with spiritual matters. They include knowledge both of the known and the unknown. Thus there is in the study of the six systems of philosophy in India a gradual evolution of thought from the known material world to unknown spiritual worlds. Each taught its own way to salvation and they all believe in the existence of God, whereas the Naastikas do not believe in the existence of God, nor do they accept the authority of the Vedas.

Vedaanta represents the highest goal of philosophy and it may be said to be in advance of all the other systems, both Aastika as well as Naastika.

Although there are extreme differences of opinion between the Naastikas and the Aastikas, there was great toleration amongst the scholars and everyone had the freedom to think in his own way. All tried to establish unity in diversity.

Thus in Sanaatana (Hindu) Dharma, the description of the Supreme (God) are many-sided and comprehensive. Being a catholic religion, including all Panthas (ways of thinking), it expresses itself in a variety of forms and comprehends all the relations which exist between man and God. Different creeds are but different paths (Panthas) to reach the Almighty. Just as the same sugar is moulded into various figures, one God is worshipped in different forms and names. Real contradictions are felt only in inferior minds.

*"Rishi bhirbahudhaagitam chhandobhir
Vividhaih prithak,
Brahma Sutra padachaiva hetumadbhir
Vinischitaih"*

(Bh. Gita. 13-4)

The words Vividha and Prithak which appear in the above verse have been used with reference to the diverse nature of the teachings in the Upanishads. In several places, they may look contradictory. Baadaraayana or Vyaasa made a great attempt to remove these contradictions and these sootras form up to this day an authoritative

exposition of the Vedaanta. Jaimini, the author of Meemaamsa sootras explained the meaning of the Vedaas in his own way and established the Karma Kaanda. Jaimini's exposition is called Purva Meemaamsa or Karma Kaanda, whereas Vyaasa's exposition is called Uttara Meemaamsa or Jnana Kaanda or Vedaanta.

Sabara Swami was a famous commentator of Jaimini's Meemaamsa sootras and Kumaarila Bhatta wrote an explanatory treatise on his commentary called Slokavaarthika.

PURVA MEEMAAMSA

The Vedic religion is divided into two well-known divisions (1) Karma Kaanda and (2) Jnaana Kaanda. The original intention of the Karma Kaanda is worship of the Sun, Fire, Indra, Varuna, Rudra and other Vedic deities at sacrificial rituals for obtaining children, cows and other wealth in this life and a happy state of death by the grace of these deities. They worshipped these deities not only for personal benefit, but also for the benefit of the community.

YAJNAS (SACRIFICES)

The rigorousness of the performance of the Yajnas gradually waned and the Smriti writers started other rituals known as the Pancha Mahaa Yajnas—the five principal sacrifices which did not entail the slaughter of animals. Manu and other Smriti writers enjoined that the following five sacrificial rites should be performed at home by every Grihasta (Manu 3-68-123):

1. Brahma Yajna—consists of the study of the Vedas.
2. Pitri Yajna—consists of oblations to the ancestors.
3. Deva Yajna—consists of oblations to Devas through fire.
4. Bhoota Yajna—consists of offering of food as Bali in the name of Bhootas (God's creation).
5. Manushya Yajna—consists of entertaining uninvited guests (Atithis)

A householder should take his food only after he has in this way satisfied respectively the Rishis, the spirits of the departed ancestors, the dieties, other living creatures and uninvited guests.

In the Bhagavat Gita, it is stated that if a person eats food only by himself, he eats Agha or sin (Gita 3-30).

Taittiriya Samhita says that a Brahmin comes to birth with three kinds of indebtedness (Rinathraya) namely, that of Rishis, that of deities and that of Pitris —ancestors. Of these, the indebtedness of the Rishis must be repaid by the study and teaching of the Vedas, the indebtedness to the deities by sacrifices (Yajna) and the indebtedness to the ancestors by procreation of children. Otherwise, there is no Moksha to a householder (Tai. Sam. 3, 6, 10, 5.)

This Karma or sacrifice is to be performed not only by Brahmins, but by every one of the four Varnas.

For example, prayers by Brahmanas, protection of the society by Kshatriyas, producing corn and the maintenance of the prosperity of the community by trade by the Vaisyas and service to the community by the Soodras.

The word Yajna was used in a comprehensive meaning of "every one doing his own duty,"

*"Aarambha yajnah kshatrascha
Haviryajna Visah smritah
Parichara yajnah Soodraseha
Japa Yajnah Dvijatayah"*

(Ma. Bha. San. 237-12)

If all these duties are not kept going by everybody according to his own status, the entire community has to suffer. It, therefore, follows that Yajnas in this comprehensive meaning are natural and always necessary for the welfare of society as a whole. Besides, it is clearly stated in the Vedas themselves, that no Karma performed for the sake of Yajna creates bondage and that heaven is obtained by the performance of Yajnas. Yajnas are Karmas (actions). Even the sun performs his Karma (Yajna) in giving light and sunshine and in causing rain. Rain causes food and food causes living beings (Gita 3-14). The creation itself is the first Yajna or Karma (Yajnah Karma Samudbhavah). If the Karma in the shape of these is given up, the whole of the world will come to a stop; nobody will have anything to eat.

DIVISION OF KARMAS

The Puraanas introduced other Karmas such as fasting, austerities and numerous Vratas. All the Karmas are sub-divided into Nitya (everyday), Naimittikha (occasional), Kaamyas (desire-prompted) and Nishiddha (objectionable) Karma. If we have to decide whether a Karma is right or wrong, we have to find out whether that Karma is Yajnaartha (for a sacrifice) or Purushaartha (for personal benefit), Nitya (for everyday use such as Snaana, Sandhya-baths and prayers) or Naimittikha (such as pacification of the inauspicious stars), Kaamyas (such as prompted by a desire for a son) Nishiddha (such as man slaughter).

On the other hand, we see clearly stated in the Jnaana Kaanda i. e., in the Upanishads, that unless Karma is destroyed by Jnaana and renunciation, there can be no Moksha. In order to harmonise both those propositions; they came to the conclusion that all Karma must be performed, but the desire for the fruit thereof should be renounced. If the Karma is performed with this frame of mind, one will undoubtedly reach Swarga, otherwise, when the fruit of even meritorious action in the shape of sacrifice etc., performed in this life is exhausted by enjoyment in Swarga, the performer of the Yajna has to come back once more from Swarga (Br. 4-4-6 Gita 2-43). Such persons have to move backwards and forwards between Swarga and Martyaloka.

The most important element in Yajna, therefore, is the giving up of the idea of 'mineness' (Mamata) with reference to the object thrown into the sacrificial fire, not merely uttering the words "Devataayair Na mama"—"this is for such and such a deity and not for me". It is not only mere uttering Mantras by mouth, but it should be accompanied by purity of thought. In short, doing any act desirelessly with a pure frame of mind is the highest Yajna in itself. The words Homa, Daana and Tyaaga also mean not the renunciation of action, but the renunciation of the reward of action. (Gita 18-9)

Meemaamsakas are known as strong supporters of the doctrine of Karma, but ordinarily the full significance of it is not properly recognised.

Purva Meemaamsa considered Sabda Pramaana as more reliable than Pratyaksha and Anumaana.

The word Meemaamsa means the method of reasoning which has to be adopted in order to understand the meaning of a word or a sentence. The epithet Purva is added because this Meemaamsa deals primarily and exhaustively with the method of reasoning regarding the sacrificial rites which form the Purva or earlier portion of the Vedas. Since the Vedas consist of words which have come down from time immemorial and since there is no author of the Vedas, they are "Apaurasheya," i. e., authorless. But the Meemaamsakas have not accepted the divine origin of the Vedas whereas the Vedaantists say that the Vedas have been naturally revealed from the eternal, pure, wise and ever-free God and are, therefore, self-evident authorities. Although some considered that early Meemaamsakas were atheists or at least did not mention about the existence of God, the later Meemaamsakas declared unhesitatingly that it is not the object of the philosophy to deny the existence of God.

The Meemaamsakas—like Nyaya Vaiseshikaas—are dualistic and believe in the separateness of the self (Jivaatma) from the body, senses and mind. They look upon the special properties like intellect, will and effort as the natural attributes of the self, namely Jnaana, Ichha and Kriya, respectively. Swarga is Parama Purushaartha or the summum bonum of human life. It is that happiness which is not mixed with sorrow or eclipsed by any other mental state, which has no cessation and which is available by the mere wish which is called Swarga. This Swarga cannot be enjoyed with this body and to attain it, one must leave the body behind.

Meemaamsakas do not believe in the absolute dissolution (Mahaapralaya). They say that the Universe exists as it is from eternity and will continue like that eternally.

UTTARA MEEMAAMSA OR VEDAANTA

The propounder of Vedaanta was Shri Vyaasa Maharshi. (He is also called Baadaraayana) There are three schools in Vedaanta:—

(1) Advaita-absolute monism or non-dualism preached by Shree Sankaraachaarya (2) Visistaadvaita—qualified monism, preached by

Raamaanujaachaarya and (3) Dvaita-Dualism preached by Madhvaa-chaarya, otherwise called Poorna Prajnaachaarya. To all these three schools Brahman-God-the Ultimate reality is one and common. The Vedaantists proclaim God to be the cause of all causes and the manifold world of human experiences as the elaborated mode of that one Eternal Entity. Creation is but a process of evolution and involution. The subtle or finer state is the cause and the gross state is the effect. Just as the raindrop, which is but vapour drawn from the oceans, ultimately comes down to the ocean only to be transformed to vapour again, all things that are destroyed only go back to their final forms: similar is the case with the universe as a whole. After each cycle, gross manifestations return to their final state—the primal substances of which all things of the Universe are but various modifications. It is the one principle that pervades all forms of matter and energy and apart from it nothing has reality of its own. The reality is one and is beyond time, space and causation. It appears as many only when it is viewed through the prism of Name and Form.

In all the three Sampradaayas, the Brahmasutras, the Bhagwat Gita and the Upanishads are taken as the three authorities. These three Grandhas are called Prasthaantraya. The propounders of the three Sampradaayas wrote their own commentaries to suit their own ideas.

(1) ADVAITA SAMPRADAAYA

The chief propounder of Advaita Sampradaaya was Sankaraa-chaarya. Sankara combined in him profoundness of thought and clearness of expression, a rare combination in philosophical writings. His works are numerous and he may be said to be one of the greatest thinkers of the world.

He starts with the view that the essence of reality must be its absoluteness i. e. it must remain ever the same, unconditioned by time, space and causality. It follows from such a conception of reality that the imperfect human intellect has not the remotest chance of even comprehending it in its entirety. Therefore, Sankara considers that Revelation or Sabda is the most reliable source of knowledge but he fully appreciates, the value of Reasoning (Anu-

maana) and Perception (Pratyaksha) and these are to be adopted only to supplement the Sruti (Sabda). His adherence to the Vedic authority is so complete that he would not tolerate any compromise even when his interpretation of the Sruti came in conflict with actual experience.

He boldly declares that "Brahman alone is Real, the world is false, the individual soul is Brahman and non else". The Srutis say, 'Tat Tvam Asi' (Thou art that).

The individual, i. e. the Jiva is perfectly identical with the Absolute Brahman. Sankara takes the Brahman as essentially Nirguna - without any attribute, Nishkriya-without any activity or movement, Niravayava- without any part, Nirupaadhika - unconditioned and absolute and Nirvishesha-having no distinguishing element in it—a simple homogenous entity. Even the words Sat, Chit and Ananda applied to Brahman, he says do not imply any quality (Guna) or differentiation but they simply mean pure living, pure consciousness, pure blessedness, each implying the other. These words are used in order to show the contrast of everything else.

Now, the question arises how could the Jiva, which is evidently just the reverse of it be identified with Brahman. How can the self - same Brahman be both the material (Upaadaana) cause and Nimitha (effective) cause of this world which is said to be always changing? How can this changing world be said to emanate from, subsist in and finally merge in the Absolute Brahman?

Sankara explains these questions by what is known as Maaya—Illusion or Adhyaasa. Vedaantists say that Brahman is real and the Naamaroepaatmaka world is illusory. When one says that the visible world which goes by so many names and forms is Mithya or illusory, one is not to be understood as meaning that it is not visible to the eyes; the real meaning is that numerous appearances of the various objects in the world resulting from time or space and diversified by name and form are perishable, that is Mithya (illusory) and that the imperishable and immutable substance which exists eternally under the cloak of these names and forms is permanent and real. The goldsmith considers bangles, anklets, chains and other ornaments as Mithya and gold alone as Satya (real). The Vedaantist goes a little deeper than the gold-

smith and looks upon all names and forms as Mithya and looks upon the fundamental substance which is the substratum of all those objects as Satya (immutable and real). That substance which is called 'Tat' (that whose existence can be only inferred by one's reason, though it is invisible to the eyes or unsmellable by the nose or untouchable by the hand is the fundamental real in the world. Vedaanta is not to be blamed because some foreign philosophers ridicule Vedaanta by saying that the world which we actually see with our own eyes is called Mithya (illusionary) by the Vedaantists. "Now, what is to be done?"

A pillar is not to be blamed because a blind man does not see it (Yaaska). Names and forms are not real. He who wishes to see the real element must extend his vision behind names and forms. That which existed in the commencement of the world was without name and form, that is, it was qualityless and imperceptible; and the same thing later on became qualityful as a result of acquiring names and forms (Br. 1-4-7 and Chan. 6-1-2-3). The mutable and the perishable name and form is given the name of "Maaya" and the visible or qualityful world is said to be the illusionary Maayic Drama or Leela of Iswara.

MAAYA

"From this point of view, the Saankhya Prakriti is nothing but Maaya composed of the Satva, Rajas and Tamas constituents, that is to say, Maaya possessing name and form, though it might be imperceptible; and the creation or extension of the perceptive universe is also the evolution of that Maaya embodied in qualityful names and forms: because, whatever quality may be taken, it is bound to be visible to the organs, that is to say, to be embodied in name and form. All the material sciences fall in this way into the category of Maaya. Take History, Geography, Electricity, Chemistry, Physics or any other science: all the exposition to be found in it is only of names and forms, that is to say, only of how a particular substance loses one name and form and acquires another name and form. For instance, these sciences only consider how and when that which is known as 'water' acquires the name of 'steam', or how various aniline dyes, having red, green, blue, or

various other colours, which are only differences of name and form are formed one black substance called coal-tar, etc., Therefore by studying these sciences which are engrossed in names and forms one cannot acquire the knowledge of the Real Substance, which is beyond names and forms: and it is clear that he who wishes to find the forms of the Real Brahman must extend his vision beyond these material sciences, that is to say, beyond these sciences which deal only with names and forms. And the same meaning is conveyed by the story at the commencement of the seventh chapter of the Chhaandogyopanishad. In the beginning of the story, Naarada went to Sanatkumaara, that is, to Skanda, and said, "Give me knowledge of the Aatman". In reply, Sanatkumaara said to him: "Tell me what you have learnt, so that I will tell you what comes next". Naarada said: "I learnt, all the Vedas, as also history and puranas, and also Grammar, Mathematics, Fine Arts, Ethics, subsidiary parts of the Vedaas (Vedaanga), Morality, Magic (Indrajaala), Warfare (Kshatravidya), Astrology, the Science of Serpents, Deities etc., but I have not thereby acquired the knowledge of the Aatman and I have, therefore, come to you." In reply to that, Sanatkumaara said: "All that you have learnt deals only with names and forms and the true Brahman is far beyond this Naama Brahma (the Brahman qualified by names)" and he afterwards gradually described to Naarada the immortal element in the form of the absolute spirit, which is beyond names and forms, that is to say, beyond the Saankhya imperceptible Prakriti, as also beyond speech, hope, project, mind, reason, (Jnaana) and life (Praana), and is superior to all of them"

Maaya is the principle that makes one thing appear as what it is not. You take a rope to be a snake; you get frightened, this is, Adhyaasa. Similarly, you take Brahman to be the world. this too is Adhyaasa—illusion. In reality, there is no snake, no world and no illusion also. Yet it is the inherent nature of man to identify truth with falsehood. This principle of Adhyaasa has no reason to exist but it is there although it is indefinable. This illusion is due to Ajnaana (want of correct knowledge). Sankara says that it is Brahman that appears as a Jiva through ignorance or Adhyaasa. The rope does not lose its "rope-ness" even when it is mistaken for a

snake, so also, Brahman cannot be said to be transformed into this world. It only appears as the world because of Adhyaasa (ignorance).

The world therefore is a figment of Maaya, a mere appearance. This Adhyaasa should not be confused with Abhaava. It is a Bhaavarooopa, a positive entity,

Saankhya holds that this world is an evolution or Parinaama of Prakriti, which is a self-existing independent principle, but Jada (inert). Maaya, on the other hand, is an entirely dependent principle, Brahman being the only reality; nothing can be conceived without being related to it. The Upaadhi or the condition that makes Brahman as the cause of the world is Maaya, but Maaya itself cannot be the cause of the world.

Maaya, strictly speaking, is a mystery. It is the indefinable power by which God (Brahman) while remaining himself changeless appears as a disability of the Jivaatma which prevents it from understanding God (Brahman) as he really is. Man as man can never know God. He should transcend his Upaadhis—his limitation or mental condition—and become divine to know the Divine Being i. e. he should become a Yogi.

RELATIVE REALITY

Although the world has no absolute reality—Paaramaarthika Satyatva—it has an apparent and relative reality—Vyaavahaarika Satyatva—that reality as far as it is necessary for all practical purposes. The objects of a dream, although known as false on awakening, are real within the limits of the dream. Similarly, the world is also relatively real and is said to be false—Mithya—only when knowledge is advanced. Although the world is false, yet it is not altogether non-existent (Abhaava) like the son of a barren woman (Vandhyaa Putra). Sankara is even prepared to grant some reality to the Rajju Sarpa (the snake in the rope), which he calls Praatibhaashika Satyatva—seeming reality.

VIVARTA VAADA

Sankara's theory of creation is called "Vivarta Vaada". This is a theory of appearance and reality, because the produce is the effect without undergoing any change in itself. What is really God appears to our limited intelligence as the universe, just as a piece of rope appears in the twilight as a snake. We come to realise God, when Avidya or the veil of misapprehension is removed by Vidyaa or divine knowledge. This is a matter of spiritual experience. We are not in the present state of our knowledge able to see how exactly the reality is connected with the appearance. The relation is, therefore, said to be "Anirvachaniya"—indefinable God, by his Maaya, brings about this wonderful phenomenon of creation.

CONCLUSION

- (1) Knowledge or consciousness of the Absolute as the reality, that is Brahman.
- (2) Jiva is essentially the same as Brahman and is, therefore, self-illuminated—Swayamprakasa, unlimited—Vibhu and free. His limitedness is due to Upaadhis or conditions of embodiment, which again are due to Avidya, and are as such unreal.
- (3) Brahman-hood is realised by the knowledge of the absolute identity of the Jiva and Brahman. Mukti—liberation—is nothing but the realisation of this identity. This is quite possible even in this body (Jivanmukti).
- (4) Moksha can never be obtained as a result of Karma. It is directly attainable by knowledge (Jnaana) but till Jnaana is attained all Vihita Karmas must scrupulously be performed as these help realisation of Jnaana.

(2) VISISHTAADVAITA

In expounding the nature of the reality according to Visishtadvaita, Raamaanuja harmonizes the claims of revelation, intuition, personal experience and reason. He accepts the authority as valid of Pratyaksha (perception), Anumaana (inference) and Sabda

(revelaton). Not only the Vedaas but even the Paancharaatras and the utterances of the Aalwaars (saints) are equally authoritative to him

The real proof of the being of God is the being in God. Brahman is absolutely true, good and blissful.

The true insight of this philosophy is afforded by the Upanishadic texts: "Brahma Vidaapnoti Param—the knower of the Brahman attains the highest (Taittiriya Upanishad 2.1.)

The Upanishads declare Brahman to be real-Satya, self-conscious - Jnaana, infinite - Anantha, sinless - Apahatapaapman and blissful-Aananda. This conception of Brahman as real etc. brings out the truth of Visishtadvaita that Brahman is and has reality. Though Brahman is the ground of all changes, it in itself does not change while Achit (Prakriti) undergoes modifications; and while the intelligence of the soul (Jivaatmas) is subject to contractions and expansion on account of their Karma, Brahman is entirely free from all these alterations and alternations. Hence Brahman is defined as "the real of reals". It is also intelligent (Jnaana). It is the self underlying all; the ultimate subject of experience. While it abides within the sensient (Ajada) and non-sensient (Jada), it is not touched or tainted by their imperfections.

The universe of the living and non-living is an eternal cyclic process with Pralaya—dissolution and Srishti—creation. God not only is the ground (Aadhara) of the universe; He is also the controller (Niyanta) and Purushottama—Possessing an infinity of moral perfections. The Meemaamsikaas insist on the meticulous performance of the rights prescribed in the Vedaas. The Vedaanta, on the other hand, regards the knowledge of Brahman as more important than the performance of Karma. The good resulting from Karma, according to the Vedaas, is attainment of heavenly pleasures, which according to Vedaanta, is evanescent and has no intrinsic value. The supreme good of Brahman cannot be bartered away.

Iswara is righteous and absolutely good. There is no caprice and cruelty in his Divine nature. While being immanent in the universe, God also transcends it. The Lord is the righteous ruler of the world dispensing justice according to the deserves of each Jiva, i. e. his Karma. The finite self or (Jivatma) has the freedom either to grow into the goodness of God or lapse into wickedness and vice

according to his Karma, which in his own hand. Justice consists in the equitable apportionment of the nature of the Karma of each Jiva. What a man sows he reaps; and not even the Gods can alter the course of moral law.

Avidya (nescience) and Karma form an endless cycle and their effect cannot be removed by death and retribution. Mukti or liberation would be impossible if Divine Justice functions through the mathematical law of Karma. But Kripa or the Grace of God transfigures the rigorous law of Karma and becomes the ruling principle of religion. The hope of salvation lies in the saving grace of God, the Rakshaka-Saviour. Karma then becomes an attitude of self-surrender. Overpowered by mercy and tenderness, God realises his Godliness by saving the sinner. When the universe is steeped in insecurity and sin, the Lord in his infinite mercy appears in the form of divine incarnation (Avataara). The Lord of Splendour takes delight in sporting with the finite self (Jiva) with a view to transmuting it into its own nature. The world is really beautiful, but it is mistaken to be ugly by the Jivaatma owing to its feeling that it is identical with the body. The relation of Sareera and Sareerin, the body and the soul formulated by Visishtadvaita, brings out the synthetic combination of the ultimate values. The Jivaatma (Sareerin) is distinct from the body. It makes the body live, it controls and coordinates its functions and uses the body as an instrument for its own satisfaction. Similarly, Brahman or Parmaatma is the Sareerin or Soul of the Universe, because, Brahman is the source and sustenance of all beings in the world. The functioning of the world is an expression for its satisfaction or Leela. There is a triple relation between the soul and the body, namely:

- (1) Aadhaara and Aadheya (support and the things supported).
- (2) Niyanta and Niyamya (the controller and the controlled).
- (3) Seshin and Sesha (the lord and the servant).

That God (Paramaatma) is the life of all (Antaryaami) is the Central idea of Visishtadvaita. In its practical aspect, it insists on the idea of God as redemptive love and lays down the path of Bhakti (devotion) and Prapatthi (self-surrender) as a means to the attainment of eternal bliss. He who desires release (Mumukshu) specialises in spiritual quest by Karma Yoga, Jnaana Yoga and Bhakti Yoga.

SEVEN STAGES OF SAADHAANA

As a preparatory discipline to Bhakti. Raamaanuja prescribes seven stages or steps-Saadhana Saptaka.

- (1) Viveka—physical and mental purity by avoiding certain food stuffs like onions, contamination of untouchables and Kesha, Kitdadi (hair and microbes).
- (2) Vimoka-giving up desires.
- (3) Abhyaasa-practising to keep Iswara Swaroopa constantly in the mind or meditation of God.
- (4) Kriya-performance of the duty (Karma) relating to one's own status of life.
- (5) Kalyaana-observance of Satya (truth) Aarjava (sincerity), Daya (kindness), Daana (charity). These qualities are known as Kalyaana,
- (6) Avasaada-freedom from depression.
- (7) Anuddharsha-freedom from elation.

By these seven Saadhanas, Bhakti will be generated and this Bhakti will secure love of God and by the grace of God. Moksha is secured.

The Jivaatma, owing to its feeling that It is identical with the body, seeks the pleasures of the senses in this world and in Swarga. It is thus caught up in the endless cycle of births and deaths in the sub-human, human and the celestial worlds. This is bondage or Bandha.

Moksha consists in the attainment of freedom from the cycle of Samsara by seeking the redeeming love of God.

The first step in the building up of Bhakti is the practice of Nishkaama Karma (desireless duty). The Jivaatma is then no longer bound by the attraction of the pleasures of the senses. It realises its own nature of Aatman as different from Prakriti (matter). The real spiritual self is realised. This is Karma Yoga.

Karma Yoga leads to Jnaana Yoga or the method of self-realisation. But Jnaana Yoga is only a half-way house to devotion. In self-realisation, Jivaatma is stranded in solid singleness (Kaivalya). It is self-centred and not God-centred.

Bhakti Yoga recognises the need for shifting the centre from self consciousness to God-consciousness. The Saanti (serenity) which arises from the state of the single soul (Kaivalya) should be replaced by the religious consciousness that God is the source and centre of all finite life and that all Jivaatmas gravitate towards God. This knowledge enables the Jiva to renounce Ahankaara and to resign itself absolutely to the will of God. Thus by various stages, there is a gradual transformation from Nishkaama Karma to the service of God. At this stage all Karma is converted into Kain-Karya—consecrated service to God and humanity. Every kind of work is thus transformed into the worship of God.

When the spiritual sense is awakened, it thirsts for God and the agony of separation experienced by a Bhakta at this stage is recorded in such outpouring of the religious heart as Gopi Geeta—the famous Asthapadi by Jayadeva. This spiritual hunger can be satisfied only by the realisation of God. The intensity of the yearning is accompanied by sleeplessness, suspension of physical activities, bodily deterioration resulting in spiritual inanity and blankness. The Lord of love (God) is likewise seized by soul hunger and scorning His heavenly aloofness and infinite glory. He invades the Bhakta's soul and longs for union with him. The soul is then released out of its fleshy feeling and is followed up in the Ocean of Bliss, that is Brahman. The freed soul ascends to its home in the Absolute. The whole process of the evolution of Prakriti (nature) is designed for the spiritual progress of the Aatman. The realisation of Brahman by all beings is the one increasing purpose running through the ages. "Mama Vartmaan Vartante Manushyaah Paartha Sarvasah"—Geeta.

Visishtadvaita guarantees God to all finite beings, human, subhuman and celestial, at some time or other. It is therefore a religion of harmony and hospitality. It does not stop with affirming the fatherhood of God and brotherhood of man. It goes further and asserts that God is the inner life and soul of all beings.

(3) DVAITA SAMPRADAAYA

In the twelfth century, there lived a very pious Brahmin boy called Vasudev who became a Sanyaasi at a very early age and

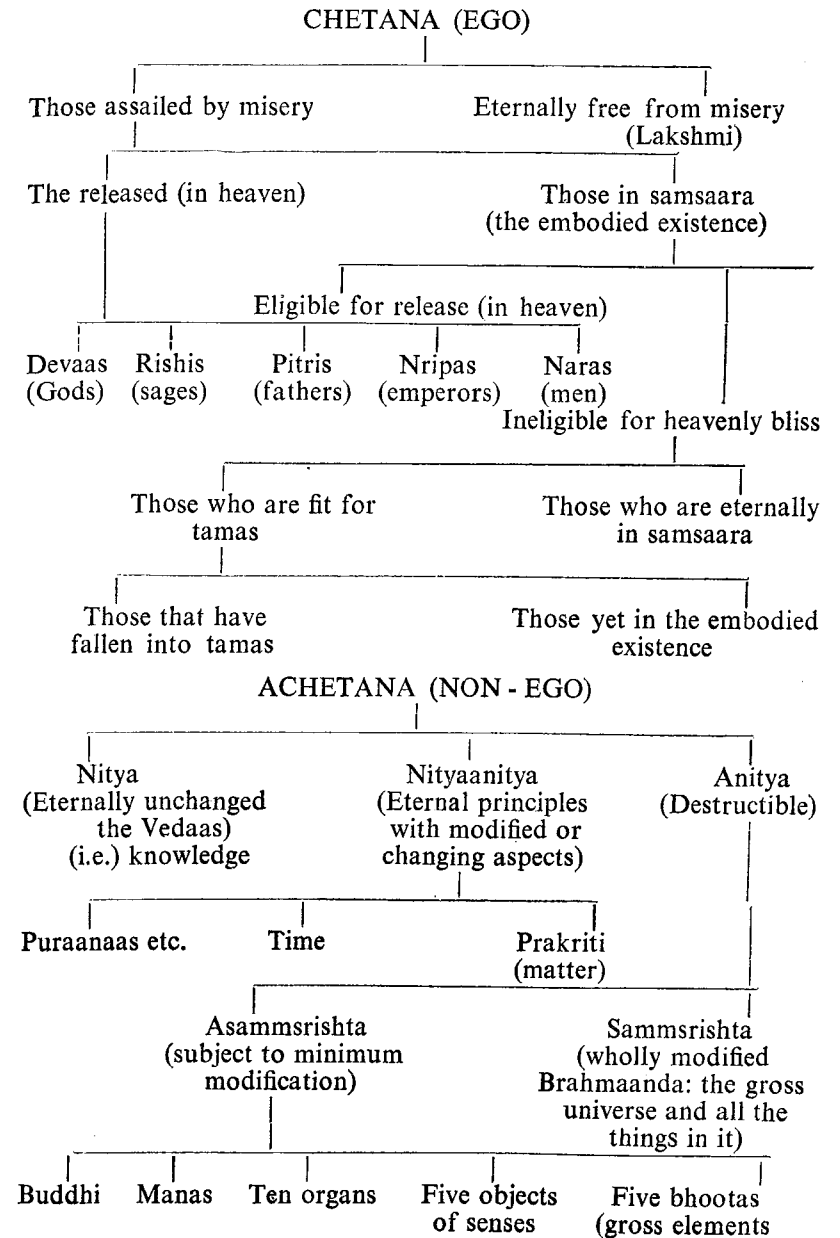
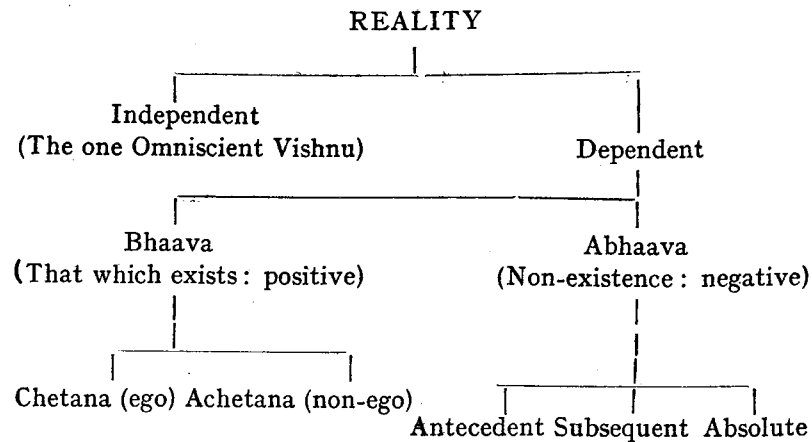
received the name of poorna prajna- He was blessed with extraordinary intellect and wrote a commentary on Bhagavat Geeta, Brahma-sootras and Upanishads.

According to him the whole Universe is divided into two main categories (1) The independent or Svatantra Being and (2) the dependent or Asvatantra existence.

The independent or Svatantra Being is but one is absolutely perfect, of infinite power and excellence, and externally and infinitely blessed in every respect; He is the one omnipotent, omnipresent, omniscient being; and all these ideas of Supreme Being form the connotation of the term "Brahman", therefore He is fit to be known and contemplated as Brahman. He is without a second, none equal to Him, and without another as superior to him It is this Supreme Being that is also spoken of as Vishnu.

TABLE OF CATEGORIES

A table of categories with their various ramifications is sub-joined below for a clear understanding of the realistic philosophy of Sri Madhvaachaarya, the founder of Dwaita Sampradaaya.



In Dvaita also Bhakti is the foremost of all means of attaining Moksha. The intense love which proceeds from a knowledge of his greatness becomes the tie between the Lord and the soul; and that indeed is the chief instrument of the Supreme Ruler. All duties performed must be the outcome of that natural Bhakti and it is should be developed till the Jiva is finally relieved.

PRAMAANAAS

The means of correct knowledge, Pramaanaas admitted by Madhvaachaarya are Pratyaksha, Anumaana and Sabda. Things which are real cannot be made unreal by any changes in them. The knowledge which refers to things existing while they do not at all exist or which refers to a thing actually existing as not existing is false knowledge and the things so referred to are unreal. Hence the objective world according to this system is real in so far as they are referred to by correct knowledge.

BEDHA (DIFFERENCES)

The Dvaita system recognises the Bheda or difference between the one Supreme Intelligent Being and the little and yet eternal and immortal spiritual being called Jiva, absolutely subject to his rule. The difference is realised in five ways:

1. The Lord is distinct from limited intelligence.
2. He is distinct from unintelligent matter.
3. One Jiva is distinct from another.
4. Jivaas are distinct from matter.
5. When matter is divided, the pieces are distinct from one another.

According to them, time and space are not continuous parts but are divisible.

The Supreme Being is omnipresent, that is, he is not limited by time and space and is present in every atom of other substances as well as outside, but this characteristic of omnipresence does not make the Supreme Being a formless mass of substance like a heap of clay.

Though all the Jivaas are said to be atomic, there is a graduation among them, according as they are endowed with higher or lower capacities.

The Jivas have to work and develop towards their destiny. For this purpose, the physical body and organs are created for their working. This state is called Samsaara. Through the Samsaara the Jiva has to work hard for many lives till he attains a development which entitles him to realise his essential nature, a state which is called Mukti or final release.

KARMA

According to this system Prakriti has no self-directed activity. It really belongs only to the Jiva (Purusha) though under the control of the Supreme Intelligence. The Jivas have therefore to work finally for attaining knowledge.

The appearance of the Supreme Being in the world is only a revelation out of his own gracious will and it is an error on our part to think that his personality so revealed is invested with physical conditions and is limited like ours.

MUKTI

There are various classes and grades among the released souls in the world of bliss but they are not at variance with (jealous of) each other because all have attained to this direct knowledge of Brahman and are free from faults. Their relation is like that of a master and pupil.†

VEDAANTA AND MODERN SCIENCES ‡

The present age is undoubtedly an age of free-thinking and criticism. Every time-honoured conception whether social,

†This article is extracted from the valuable article contributed by Sri Subba Rao, M. A. to the Cultural Heritage of India. Vol. I.

‡The following extract is taken from the valuable article contributed by Sri Swami Tejasananda, Ramakrishna Math, Madras, to the Cultural Heritage of India, Vol. I.

political or religious, is being recast in the new mould of thought, and nothing is accepted as valid until it has been satisfactorily tested by human reason. "Our age is an age of criticism, a criticism from which nothing need hope to escape. When religion seeks to shelter itself behind its sanctity and law behind its majesty, they justly awaken suspicion against themselves, and lose all claim to the sincere respect which reason yields only to that which has been able to bear the test of its free and open scrutiny." This spirit of criticism born of a dissatisfaction with the existing order of things has invaded every branch of human knowledge both in the East and the West; and it is a hopeful sign of the times that as a result of this bold and free enquiry into the ultimate truth of things, a disposition to bring into synthesis the manifold findings of science and philosophy, of sociology and politics, and thereby to harmonize the apparent conflicts in the realms of thought, is already in evidence for the betterment of human life. The old antagonism between science and philosophy has almost been reduced to a minimum through the untiring zeal and creative endeavours of the mighty intellects of this rationalistic age. And it must be said to the credit of Vedaanta that today Western science no longer contradicts but finds in this philosophy, the crowning glory of Oriental thought, a happy fulfilment of its noblest aspirations and the hierophants of both the branches of knowledge, through mutual understanding and sympathy, have already created opportunities to usher in a new era in the history of mankind.

TWO LINES OF APPROACH TO TRUTH

It cannot but be admitted that much of the unseemly jealousy, hatred and rivalry amongst nations is due to a lack of sympathetic understanding of one another's history of life, tradition and culture. Neither the East nor the West ever seriously attempted to know each other's mind and assimilate the best features of each for their mutual well-being. The West has so long been in ignorance of the boldest spiritual flight of Oriental genius and the East has likewise failed to take advantage of the scientific achievements of the West. This ignorance, studied or otherwise, of each other's cultural trend and wisdom has in no small measure been productive

of antagonism and conflict between the two in the past. Every student of the history of comparative philosophy now admits that the 'journey to the mental antipodes being longer than the journey to the physical, the West has forced its way into the latter and has grabbed while grabbing was good and completely ignored the spiritual.' As a matter of fact, the two minds, Eastern and Western, though cognate to each other in form, kinship and sympathy, had their distinctive lines of growth and expansion. The ancient Hindus by the very nature of their position and environment developed an introspective mentality and started in search of the ultimate verity of life by analysing the internal world, whereas the ancient Greeks and their faithful followers, the people of the West, proceeded in pursuit of the same through a scientific analysis of the external phenomena and it is indeed curious to note that the vibrations of both the minds ultimately tended to produce similar echoes from the goal beyond. But unfortunately both the East and the West till recent years failed to co-ordinate their respective findings, and thereby kept unbridged the wide gulf existing in their viewpoints of life and its destiny.

WHAT SCIENCE AND PHILOSOPHY AIM AT

It is interesting to note that in India there has never been any such clash between the findings of science and those of the philosophy of Vedaanta. The reason is not far to seek. In India the ultimate motive of investigation into truth and the mode of application of the scientific achievements were attuned to the same spiritual end; and the results of scientific enquiries found their echoes in the spiritual realizations of the master-minds of the land. But in the West the case has been just the opposite. The scientific achievements of occidental geniuses, on account of their materialistic outlook, have served mainly to pander to the baser instincts of man by releasing his passions, and have oftener than not ranged themselves as a mighty force to antagonize the sacred aims and purposes of the spiritual life. But today it is really refreshing to find that according to the best minds of the West 'philosophy and science are not regarded as watertight compartments but are permitted to influence each other as parts of one organic whole of

knowledge,' and the lines of demarcation between realism and idealism at the present day have become very indistinct. For science has been taking its legitimate share in the problems of philosophy and has arrived at almost the same end. Sir Oliver Lodge in an illuminating article entitled "Science and God" has beautifully summed up the entire process of research in the domain of Reality. "The revelation of science," he says, "is that that which occurs here in the physical universe, occurs everywhere; that the laws are the same throughout. In other words, the universe is really one and there is no conflicting or opposition power.....So that if there be a God who understands and is responsible for anything, He must be responsible for everything, that the God of this earth is the God of the whole heavens and that there is none other; that His power and influence extend to the remotest confines of space from eternity to eternity, and that in that majestic and one Reality, however little we as yet apprehend in nature, we and every part of the material, and of mental and spiritual universe too, live and move and have our being." Thus what with the unfoldment of knowledge and what with the indefatigable labours of the modern scientists of the East and the West, the boundaries of distinction have almost vanished and a *rapprochement* between the two schools of thought as well as between the East and the West has been greatly facilitated. The one outstanding feature in the gradual toning down of the spirit of antagonism between the two branches of human knowledge is the unconscious orientation of occidental thinking to the Indian conception of the highest truth of life. What at one time was twitted by the West as preposterous in the Hindu philosophy has now been acknowledged as the finality of human aspiration by the leading Western scientific thinkers and the 'supermen' of Arthur E. Christy have already joined hands in love and admiration for the consummation of a cultural synthesis between the East and the West. It is needless to point out that the output of those secular institutions where Bunsen burners and Bessemer crucibles are in use, cannot but harmonize with the mystic experiences of the Upanishadic seers so as to wed the life of the West to that of the East indissolubly.

VEDAANTA: THE SCIENCE OF REALITY

It should be borne in mind that the above - mentioned conflict between these two departments of knowledge has hitherto centred round the determination of the exact nature of the ultimate reality. It is the glory of Vedaanta that it sounded long ago a death-knell to all the apparent conflicts and contradictions, and proved itself to be the only 'science of reality' which has been competent to solve for mankind the eternal problems about God, soul and the universe. The Vedaantists proclaim God to be the cause of all causes, and the manifold world of human experiences as the elaborated mode of that one Eternal Entity. Besides what is called 'creation' is, according to them, but a process of evolution and involution. The finer state is the cause and the grosser state the effect - a fact which is an every-day experience of man in this world of phenomena. The raindrop that sparkles in the sunbeam is nothing but vapour drawn from the ocean; but this vapour ultimately comes down in the shape of raindrops only to be transformed into vapour again. Thus the things that are destroyed only go back to their finer forms. Similar is the case with the universe as a whole. After each cycle all gross manifestations return to their final state—the primal substance, of which all the things of the universe in the form of motion, vibration, thought, resistance, object, etc., are but various modifications. The Prakriti of the Saankhyaas is the same as what we understand by nature or matter, and the *Pralaya* (dissolution) is only a state of equilibrium of the three forces—*Tamas* (inertia), *Rajas* (activity) and *Satva* (the balance of the two). When the equilibrium is disturbed and one of the three forces gets the better of the other two, motion sets in and 'creation' begins. The Sruti considers this projection and dissolution of the universe as the out-breathing and in-breathing of God. Thus what lies in a potential or causal form at the end of a cycle manifests itself as the effect at the beginning of 'creation,' and this gradual manifestation of the cause in its gross form is what the scientists understand by 'evolution.' The Vedaantists have gone a step further in their quest of truth: they assert that there can be no evolution without a previous involution; for evolution presupposes involution. There is thus a world of significance in the expression, 'ex nihilo nihil fit,'—out of nothing, nothing

comes. The same thing which appears as cause becomes amplified and evolved as the effect in the end. The whole series of evolution from the protoplasm to the perfect man involves one intelligent substance which is the same throughout the process of 'creation' as well as before and after it. The theory that intelligence evolves in process of evolution is untenable because, as we have already pointed out, the beginning and the end being the same it is only the intelligence involved in the protoplasm that unveils itself until it becomes manifested in the perfect being. It is therefore quite reasonable to hold that "the perfect man who is at one end of the chain of evolution was involved in the cell of the protoplasm which is at the other end of the same chain.....The intelligence which is involved in the beginning becomes evolved in the end. The sum total of intelligence displayed in the universe must therefore be involved universal intelligence unfolding itself. This cosmic intelligence is what the theological call God. That is why all the scriptures say, "In him we live and move and have our being."

Indeed, the multiple forms that we see in the world are but the varied expressions of that one cosmic intelligence—the Supreme Being. He is thus the material and the efficient cause of this universe, inclusive of time and space, cause and effect. He is infinite knowledge, infinite bliss and infinite existence, pervading the whole chain of creation. In short, he is one without a second. In Vedaanta, this Supreme reality has been termed Brahman—existence—knowledge—bliss absolute; and this is the most universal of all generalisations. Rightly has Swaami Vivekaanandaa said, "You and I are little bits, little points, little channels, little expressions, all living inside that infinite ocean of existence—knowledge—bliss. The difference between men and animals, between animals and plants, between plants and stones, is not in kind, because everyone from the highest angel to the lowest particles of matter is but an expression of that one Infinite Ocean, and the difference is only in degree." It is the one immanent principle that pervades all forms of matter and energy, and apart from it nothing has a reality of its own. The Advaita Vedaanta emphatically says that it is only through our ignorance (Avidyaa) that we consider this universe with its multifarious names and forms as distinct from the Aatman—the universal self. This Avidyaa, the Chitsukhi holds, is beginningless and is of

the nature of a Bhaava (a positive entity), but is removable by Aavarani Sakti (veiling power) which hides the real nature of Brahman, and the Vikshepa Sakti (projecting power) which projects the relative reality of the universe. It is neither extent nor non-existent but something the exact nature of which is indefinable (Anirvachaniya) It is this Avidyaa, says Sankara in his Brihidaaranyaka-bhaashya, that presents things as separate from the Aatman—the Brahman of the Upanishads; for it is the nature of Avidyaa to cause differentiation in what would otherwise be a unitary experience. But from the absolute (Paramarthika) standpoint there is nothing but the Aatman—the one transcendental reality which is changeless and eternal. The rigorous monism of Sankara would never admit the co-existence of two absolute realities, such as the noumenon and phenomenon. It is only the noumenon that exists and the phenomenon has only an empirical reality.

Thus it is clear that the Reality is one, and beyond time, space and causation. It appears as many only when it is viewed through the prism of name and form. The Advaitists generalize the whole universe into one entity which appears as manifold only through our ignorance. They call this theory of their Vivartavaada (apparent manifestation), and substantiate their position through the well-known illustration of the rope and the snake, where the rope appears to be a snake, but is not really so. Thus they hold that the whole universe is identical with that being. It is unchanged and all the changes that we see in it are only apparent, and are caused by Desa, Kaala and Nimitta (space, time and causation) or according to a higher psychological generalization by Naama and Roopa (name and form.) It is name and form that differentiate one thing from another. In reality they are one and the same for from the absolute standpoint the Aatman alone and nothing else exists. Thus it is the Advaita Vedaanta that for the first time in the history of the world struck this sublime note of unity in the domain of spirit and matter.

THE GOAL OF SCIENCE

The modern scientists have almost come to the very same conclusion; though in a different way. The present tendency of science is towards the recognition of the ancient Hindu doctrine of

one substance. Rightly has Sir John Woodroffe remarked in his Universe as Power—Reality: "When the Western science attributes unity, conservation and continuity to matter, energy and motion in a universe of obvious plurality and discontinuity, what it is in fact doing is to show that none of its conceptions have any meaning except on the assumption of the unity and unmoving continuity of consciousness in the sense of the Vedaantic Chit.....Matter is really indestructible and the glory of modern scientific achievements lies in the fact that it has dematerialized matter and has made the way for the vedaantic conception of Maayaa and has further recognized that from its materia prima all forms evolved: that there is life in all things and there are no breaks in nature.....There is no such thing as dead matter." The well-known experiments of Dr J.C. Bose establish response to stimuli in organic matter. What is this response but the indication of the existence of that Saatva Guna which Vedaanta and Saankhya affirm to exist in all things, organic or inorganic? It is the play of Chit in this Satva, so muffled in Tamas as not to be recognizable. Consciousness is throughout the same. What varies is its wrappings. There is thus a progressive release of consciousness from gross matter through plants and animals to men." He further says, "My own conviction is that an examination of Indian Vedantic doctrines shows that it is in most important respects, in conformity with the most advanced scientific and philosophic thought of the West and that where this is not so, it is science which will go to Vedaanta and not the reverse." In short, practical science is charged with the mission of finding out the unity of things and already the scientific inventions have helped in no small degree to establish the idea of the unity of mankind, to diminish particularizations and to foster a wide view of the universe and its meaning. For science is nothing but the finding of unity. When it will reach perfect unity, it will stop from progressing further. Thus chemistry will cease to advance when it discovers one element out of which all others can be evolved. Similar will be the case with physics when it is able to find out one energy of which all the others are but manifestations. Thus, to attain unity through multiplicity is the goal of science; and all branches of it are bound ultimately to arrive at this conclusion. It is not surprising to find that manifestation, and not creation, is the watchword of science

today. In fact, what the Hindu has been cherishing in his bosom for ages is going to be verified and taught in more forcible language by the latest findings of science. Thus we see that all human investigations and strivings both in the external and in the internal world eventually dissolve into one synthetic for highest truth. Metaphysics being an ontological science is concerned with the discovery of the cause of all causes, the Supreme Reality; whereas science begins with an investigation into the universal laws of objective phenomena, which furnish tangible data for the apprehension of the ultimate unity that stands behind all that we perceive. Whatever be the technical difference between the functions of science and of philosophy, both ultimately lead to the discovery of the one governing principle—the final goal of all human research. For "Truth is one; the sages only call it by various names." (Rig-Veda I. 164-46),

A RESUME OF PAST SCIENTIFIC ACHIEVEMENTS

It is really refreshing to find that with the advance of scientific knowledge, the old notion about Nature as 'an ocean of mechanism surrounding us on all sides' is disappearing. A retrospect of the whole process of scientific investigation and the net results achieved by the leading scientists of the West since the golden days of the Renaissance reveals a gradual process of abstraction—a fact which has become typical of modern science. It is admitted on all hands that physics, by virtue of its being concerned with positive data and having greater scope for experiment and observation than other branches, is the vanguard of the material sciences and that it is the physicists who by their patient study and research have brought about a complete revolution in our old notions regarding the elements out of which the physical universe is built up. For our present purpose, the age of Galileo (1561-1642) may be taken as a great landmark in the history of scientific researches and discoveries. The greatest contribution of Galileo to the scientific world is his analysis of the conception of motion. In his opinion the really important properties of the world are those that can be mathematically defined. The entire cosmos, he says, is built out of atoms possessed of four properties, viz, size, shape, weight and motion, and

these atoms acted on by forces produce by their combination the whole material universe. In other words, the object of the science of physics, according to him, is to prove that every phenomenon is explained in terms of motions of little particles. Thus the real world around us is conceived by Galileo to be quantitative.

This theory received a systematic treatment later at the hands of Dalton who removed much of the vagueness attaching to Galileo's theory and placed the system on a more logical and scientific basis. In his opinion every substance of the physical universe is the product of a combination of two or more of the ninety chemical elements existing in the world. And to explain the three different states of matter, viz solid, liquid and gaseous, which are observed in nature, he evolved the theory of heat which, he held, produced changes in matter from solid to liquid and from liquid to gaseous, and increased the atomic and molecular motion of bodies as well. This hypothesis no doubt covered a large ground and explained a wide range of phenomena, but not all of them. In spite of his explanations, the notion of atoms remained as vague as before.

Consequently, this conception of atoms as ultimate particles of matter has to give way to newer scientific revelations. A series of experiments made towards the close of the nineteenth century brought it clearly home to the minds of the scientists that the atom was not a simple entity. Sir J. J. Thomson, the celebrated English scientist, by a careful adjustment of two plates (i. e., positive and negative electrodes) inside the two ends of a glass tube emptied of air and connecting them to a source of electricity, produced a strange phenomenon : a stream of what are called cathode rays was found to issue from the negative electrode in straight lines. This led him in 1897 to put forward the theory that these rays consisted of electrically charged particles which were found to be nearly two thousand times smaller than the hydrogen atom, the lightest known atom in the world. These particles came to be called electron and were recognised as the real basis of the material world. Thus the scientists practically bade adieu to gross matter and soared into the realm of energy. In fact, this theory seemed to make the whole world of matter completely unsubstantial.

But even this failed to meet the various complications that arose; for electrons by themselves are not sufficient to build up

atoms of matter, which are electrically natural whereas electrons being negatively electrified are mutually repellent and as such useless for constructive purposes. The finding of a positive electric charge was a dire necessity to ensure stability to an assemblage of such electrons. This difficulty was soon overcome by Sir Ernest Rutherford, who is credited with the famous theory according to which an atom resembled a 'miniature solar system.' The positive charge was supposed to be located at the centre of the atom and the negatively charged electrons, like so many planets, spun round it like a miniature solar system. Thus the central positive charge was held to be just sufficient to counterbalance electrically, the sum of the electrons moving round it. But even this theory failed to satisfy completely the critical spirit of later scientific minds. Max Planck's Wave theory of radiation and the Quantum theory of the celebrated Danish physicist Niels Bohr, though grand and valuable in themselves, were also insufficient to tackle the intricate problem of the physical universe. All the above theories about an atom had to yield to the purely mathematical theory which gradually gained the upper hand.

According to it the electron is no longer conceived as a particle but as a system of waves, and the fundamental entities are no longer 'picturable.' Thus the old conception of a permanent substance has to give away to an abstract notion—a collection of mathematical symbols, for, as Mr. Sullivan has put it, "these waves are located within what is called a configuration space." This configuration space is certainly not ordinary physical space, for the reason that each electron requires a three dimensional configuration space to itself. Thus two electrons require a space of six dimensions in which to exist; three electrons require a nine dimensional space, and so on. It is evident, therefore, that the configuration space is not real space, and in this sense the wave system that represents an electron is a mere mathematical device and not a description of a physical reality." Mr. Minkowski's conception that the universe in which events exist is of four dimensions and that it is our minds that split up this universe into three dimensions of space and one dimension of time, serves only to support the above conclusion. So, it can no longer be asserted with positive certainty that a given set of data can determine the behaviour of the next set of affairs—the causal

link in the strictest sense being hardly ascertainable to explain the happenings of things in nature. Thus strict determinism cannot be assumed to play any substantial part in the behaviour of the ultimate elements of the physical world, and, curiously enough, this gradual elimination of determinism from the field of scientific study and research is in keeping with the spirit of the latest findings of modern science.

Einstein's Restricted Principle of Relativity, Published in 1905, as well as the Generalized Principle of Relativity published ten years later tended only to confirm the modern belief in the validity of mathematical theory. For whatever words science may use for its concepts—light, quantum, distance, mass, four-dimensional continuum, electron, or whatever they be—we find in each case that each of these words stands for a body of mathematical relations, and consequently 'science does not tell us anything about the substance of the elements out of which we have built up the perceptual world. It tells us merely mathematical specifications of those elements.' From the above it becomes clear that the material universe is much more subjective than the ancient scientists supposed, and 'the modern scientific man is sufficiently conscious that he is only talking about certain mathematical relations when he talks about the entities out of which he intends to construct the universe.

CONCLUSIONS OF MODERN SCIENCE

From the foregoing retrospect, it is now easy to follow how this process of abstraction become the characteristic feature of modern science. With the passage of time and the rapid march of events, science has explored many an unknown region of nature and its startling pronouncements are found to echo in no small measure the metaphysical findings or hoary antiquity. To crown all, modern science exhibits a persistent tendency to eliminate altogether the hitherto supposed distinction between mind and matter—a phenomenon which is epoch-making in its character, for the scientists, by dematerializing matter, have practically opened the door for the Vedaantic conception of Maayaa. It is the ancient Indian doctrine that both mind and matter are modes of one and the same substance and, as such, they are akin to each other. This fact has

been accentuated by some of the distinguished scientists of the modern age. Dr. A. S. Eddington says in *The Nature of the Physical World*; "The frank realization that physical science is concerned with a world of shadows is one of the most significant advances.....In the world of physics, we watch a shadow-graph performance of the drama of familiar life. The shadow of my elbow rests on the shadow table as the shadow ink flows over the shadow paper. It is all symbol; the physicist leaves it. Then comes the alchemist Mind who transmutes the symbols. In the transmuted world new significances arise which are scarcely to be traced in the world of symbols so that it becomes a world of beauty and purpose—and, alas! suffering and evil." "To put the conclusion crudely, the stuff of the world is mind stuff.....The realistic matter and fields of former physical theory are altogether irrelevant except in so far as the mind-stuff has itself spun these imaginings." "The external world has thus become a world of shadows. In removing our illusion we have removed the substance, for indeed we have seen that substance is one of the greatest of our illusions." Thus we find that this great scientist is in perfect agreement with the Vedaantist in regard to the conception of mind and matter, and has indirectly introduced in the realm of matter the inevitable doctrine of Maayaa, which the Vedaantist accepted ages ago for the explanation of this unsubstantial world of phenomena. The conclusions of Sir James Jeans another great scientist of the modern world, deserves also a careful consideration. In 'The Mysterious Universe' he remarks: "To-day there is a wide measure of agreement which on the physical side of science approaches almost to a unanimity, that the steam of knowledge is heading towards a non-mechanical reality; the universe begins to look more like a great thought than like a great machine.....The old dualism of mind and matter, which was mainly responsible for the supposed hostility, seems likely to disappear, not through matter becoming in any way more shadowy and unsubstantial than heretofore or through mind becoming resolved into a function of the working of matter, but through substantial matter resolving itself into a creation and manifestation of mind." The very same view has been reiterated by him in his later work 'The New Background of Science' He opines: 'Our last impression of nature, before we began to take our

human spectacles off, was of an ocean of mechanism surrounding us on all sides. As we gradually discard our spectacles, we see mechanical concepts continually giving place to mental. If from the nature of things we can never discard them entirely, we may yet conjecture that the effect of doing so would be the total disappearance of matter and mechanism, mind reigning supreme and alone." "Broadly speaking", he further says, "the two conjectures are those of the idealist—or, if we prefer the mentalist and materialist—views of nature. The present-day science is favourable to idealism. In brief, idealism has always maintained that, as the beginning of the road by which we explore nature is mental, the chances are that the end also will be mental. To this, present-day science adds that, at the farthest point she has so far reached, much, and possibly all, that was not mental has disappeared, and nothing new has come in that is not mental."

Thus we see that the great truths that were visualised by the ancient sages of India have in modern times found a clear reaffirmation in the scientific world after years of diligent research and experiment. As already shown: one unit energy vibrates through the entire creation from man down to the plant and the mineral and these varieties are but the expressions of the one entity, the first cause. This infinitude and oneness of things has been the conclusion of material science. The zero of arithmetic or the geometrical point has in it the conception of infinity. Chemistry has likewise found out that there is but one element to which the ninety different elements supposed to constitute this world by their combination can be reduced. That one eternal element is identical with the energy of the physicist, the first cause of the metaphysicians, the zero and the point of the mathematicians. "Physically speaking, you and I, the sun, the moon and stars, are but little wavelets in the one infinite ocean of matter, the *Samashti*." Vedaanta, going a step further, shows that behind this idea of unity of all phenomena, there is but one soul permeating the whole universe and that all is but one existence, one reality without a second. It is our ignorance alone (*Avidyaa*-notion of name and form) that brings about a dichotomy in what is but one undifferentiated mass of pure consciousness (*Sat Chit Ananda*).

It is now evident from the above observations that the antagonism between science and philosophy is vanishing with the progress of scientific knowledge; for the findings of science are strengthening and not undermining the foundations of philosophy. The two meet at a point where humanity stands as one indivisible entity and it is this basic unity which both science and philosophy seek to find out. Therefore science would fail in its noble task of promoting human brotherhood if it caters only to the animal instincts of man and be an instrument of destruction in the hands of politicians. Likewise, if philosophy does not foster a spirit of fraternity among mankind on the basis of its spiritual oneness, it too would stultify its sacred mission. We doubt not that if the savants of both departments of human knowledge realize their responsibility and proceed to their common task of betterment of human life and society, the world would be a playground of mankind instead of a battlefield. In conclusion, it must be said to the credit of science that with the advance of knowledge, the outlook of the scientific world has undergone a great revolution; the old dogmatism has almost vanished, and the door has been kept open for a co-ordination and synthesis of the newer revelations gathered from the unfathomable womb of nature. Says Professor Eddington; "If the scheme of philosophy which we now rear on the scientific advances of Einstein, Bohr, Rutherford and others is doomed to fall in the next thirty years, it is not to be laid to their charge that we have gone astray. Like the systems of Euclid, of Newton, which have served their turn, the systems of Einstein and Heisenberg may give way to some fuller realization of the world. But in each revolution of scientific thought new words are set to the old music, and that which has gone before is not destroyed but refocussed."

HINDU CONCEPTION OF MIND AND MATTER*

The fundamental difference between Western and Eastern psychology is that the Western does not, and the Eastern does differ.

* The following extracts on the Hindu Conception of the Mind and Matter are taken from the valuable book 'World as Power,

rentiate mind from consciousness. On the contrary, Western psychology interprets mind in terms of consciousness, that is, consciousness is the distinctive character of mind.

The Western 'mind' is something for which there is no adequate Sanskrit equivalent since the notions are different. When we speak of mind in Vedaanta, we refer to the 'inner instrument' (Antahkarana) as distinguished from the 'outer instrument' (Baahyakarana) or senses, on the one hand, and on the other hand from consciousness of which both mind and senses are instruments.

PURE CONSCIOUSNESS (CHIT)

Pure consciousness (Chit) is not an attribute of mind. It is beyond mind being independent of it. It is immanent in mind and is the source of its illumination and apparent consciousness. Western 'mind' is the Indian Antahkarana-Vachchinnā Chaitānīya, i. e., Chit (consciousness) as (apparently) conditioned by Antahkarana—which as Jada or unconscious process is of and in the condition, viz., Chit. Manas which is sometimes translated as 'mind' is only part of Antahkarana.

The recognition by present-day psychologists of two forms of mental life, conscious and sub-conscious (sub liminal) seems to contain the germs of the distinction, which India has always held, between mind and consciousness.

SUPER-CONSCIOUSNESS

The view is in consonance with Vedaanta which calls the latent and sub-conscious a Samskāra and adds a third, viz, super-consciousness that is beyond ordinary consciousness, whether latent or patent, which is pure Chit. Chit is more or less veiled by mind. To use one of the expressive metaphors of Vedaanta, Chit is like a lamp which the mind envelops as a screen sometimes revealing it by its transparency, sometimes concealing it by its opaqueness, and

Power as Mind' by Sir John Woodroffe. We are greatly indebted to the author and the publishers Ganesan & Co., Madras.

thus always conditioning its illumination both as regards its quality and quantity.

MIND AND MATTER ARE LIMITED MODES OF POWER

According to the Vedaanta, that principle is pure Chit of which both mind and matter are limited modes of its power. All psychical functions therefore, whether as intellect (Buddhi), feeling (Ichha), will (Ahankāra) and the like are limited modes (Vritti). Chit is pure consciousness itself. Mind, in fact, is an unconscious force which in varying degrees obscures and limits consciousness such limitation being the condition of all finite experience. Chit is thus consciousness. Mind is consciousness plus unconsciousness intermingled consciousness-unconsciousness which we see in all finite beings. Mind is both substance and process. It is substance as the mind-substance or Antahkarana and it is process as the modifications or Vritti of that substance. Mental process is a yielding or (relative) unveiling of Chit which is itself unchanged. Consciousness appears, however, to undergo change because of the modifications of mind of which it is the changeless substratum.

POWER (SAKTI) AS MIND

We may take first the dualistic theories. Vedaanta agrees with the Cause theory in so far as the latter holds that conscious (mental) process and nervous process are causally related provided we substitute for the word 'conscious' the word 'mental'—the process is not in consciousness but in mind.* The mental is a subtle quasi-material process. Vedaanta holds, that both processes, physical and material, have a common ground in consciousness and thus escape the difficulty in conceiving interaction between things of a wholly different nature as mind and body are commonly supposed to be. It differs, therefore, from psycho-physical parallelism in that

*Process is of and in the condition, namely Antahkarana and not in that which seems to be conditioned or Chit.

the latter offers no explanation of the relation between psychosis and neurosis. It asserts, not a mere concomitance, the nature of which is unexplained, but a causal interaction between mind and matter rendered possible by their common ground. Mind is enabled to see matter because both are forms of the Supreme Power (Mahaa Sakti) which is an attribute of the supreme consciousness.

UNITY BEHIND MIND AND MATTER

Turning then to monistic Western theories these hold that mind and matter are parallel manifestations of one underlying substance. They are not two substances in interaction, but this interaction is the outer form of the inner ideal unity of consciousness. Each particle of matter has a mental aspect. 'It is as if the same thing were said in two languages.'

Western science thus vaguely feels that there ought to be a unity behind mind and matter, does not yet know where that unity has to be found, and so uses metaphors and language which from the Vedaantic standpoint, appear vague.

From this standpoint, we must first clearly distinguish between worldly experience and Yoga experience, for which we have no warrant short of experience of this stage. According to the former there is in fact duality. We cannot escape that. From this dualistic standpoint, there must be an interaction because if we assume two things, we must assume an interaction between them. Yoga experience transcends this duality, as pure consciousness. Consciousness is the ground of knowing and known.

PURE CHIT—CHANGELESS AND FORMLESS

But here again we must distinguish pure consciousness—*Chit as such is neither efficient (Nimitta) nor material (Upaadana) cause, but consciousness-power (Chit-Sakti) both. The former as pure Chit or Indian consciousness is the changeless and processless background of all changes and processes.

*Chit is Inaana—Svaroopā, Chidaakasha, Samvid, etc., the Shiva or Prakaasha as opposed to the Shakti or Vimarsha aspect.

Though not itself changing it contains the ground and possibility of all change. This alogical (Adhishata) position is expressed in Shaakta doctrine by saying that in one aspect, It remains what It is, yet in another It is changing to become the world. This is the power of Sakti or Vimarsha aspect. The first is the being, the second the becoming aspect. Therefore in world experience, Indian consciousness is the unchanging principle of all changing experience. Through its power it appears as mind and matter. It is against this static background that all changes occur. Activity is in mind and matter, now veiling now revealing unchanging Chit by their material processes as psychosis or neurosis. It is simpler, to say that consciousness is the static aspect of power (Chit-Shakti), the kinetic aspect of which (Maaya Sakti) produces mind and matter, both in differing degrees being veilings by unconsciousness of consciousness.

THEORY OF PAN—PSYCHISM

According to Pan-Psychism all matter has a rudimentary life, and mind and matter has thus a psychological aspect. This is so. But it is in what sense? In so far as any thing or process is or can be an object of consciousness (Jneya) Jada or non-conscious. The term has a psychological basis. Thus an object of consciousness may be either objective or subjective. What Western science calls matter or quasi-material is an instance of the subjective. But the 'inner instrument' (Antahkarana) or mind (including the self) can be an object of consciousness and is therefore as such Jada. In fact even Prakriti Sakti, as the causal stress which evolves the world, is from this standpoint Jada. Pure consciousness of Chit beyond mind, through manifesting in the operations of the latter, is in its transcendental aspect alogical. Thus the first polarity which appears in consciousness is that of the knower and known. When this polarity appears Chit splits up as it were into two parts or poles—one part still remaining Chit (i. e. knower) the other appearing as though it were not Chit or Jada that is as the known. In the latter, Chit as it is in itself is veiled. The veiling principle which is power or Sakti is manifested as the various tendencies (Gunas) of the

material cause (Prakriti) in various combinations. When Chit is enveloped by the material principle in what is mainly its revealing tendency (Satwa Guna) we have the inner instrument which corresponds to the Western mind minus consciousness. When it is enveloped by the material principle in what is mainly its activity-tendency (Rajoguna), we have life (Praana); when it mainly its veiling tendency (Tamoguna) we have matter in the Western sense. When therefore, we speak of matter as Jada, we do not mean that it is unconscious in the sense that it is in itself unconscious and without mind or life, but in the sense that it is an object for consciousness, something in this sense other than it is as knower. The first primary (logical) operation by which Chit becomes so disposed as to remain Chit in one part and appear to cease to be Chit in another part is (*Srishti*) or becoming called 'creation' and that which is obtained out of Chit—the other the Jada, the object—the Bhuta or Matter. Therefore mind and matter are both in the general sense Bhautika (sensible matter). Chit, however, never really ceases to be such, not merely in the pole which is still the knower (Chetana) but also in the other pole, which is veiled so as to appear as not-Chit (Achetana). Thus the Tantrik rite called Bhutashuddhi is, philosophically considered, the removing of the veil by the realisation of the Mantra; "He I am" (soham); that is, the universe is first identified with the 'I' and then this with the pure consciousness or Chit. It is thus the placing of the self in the return-current i. e., from gross to the subtle.

The Western mind, 'life' and 'matter' are at the root one, firstly because the primary basis in all cases is Chit and secondly because the veiling principle (Maaya Sakti), which works them out is composed of the same factors (the Gunas, Satwa, Rajas and Tamas of Prakriti) in all cases though in different degrees. Matter is Chit heavily veiled and inert. Life is Chit more lightly veiled and active. Mind is still more lightly veiled and active, and becomes in its developed and complex processes the revealer of the self to the self, beyond which there is nothing. Both the life-aspect and mind-aspect may be the subject of direct perception by special means either of science or Yoga.

RUDIMENTS OF LIFE OR MIND IN STONE

A block of stone is perceived by the natural eye as inert lifeless matter. The ordinary sense organs may be insufficient to found an inference of rudiments of life or mind say in a stone. But science extending natural faculty by its delicate instruments, or Yoga by its process of Samyama (Yogic concentration) may enable the observer to perceive that on which the inference of life and mind is established. 'A priori', the conclusion may be established by the ontological theory or 'a posteriori' on the theory of evolution. Though at root matter, life, and mind are one, yet as matter and mind they are phenomenally different. One must assume, therefore in all objects the same causal interaction of their psychic and material aspects, more or less rudimentary as it may be, as we find in man's nervous processes with their corresponding psychoses.

THE NATURE OF MIND

Mind may be defined, in the first instance negatively, as that part of our subjective life which in itself is not consciousness, though it appears to be conscious through association with the latter. Whether there is such a stage as pure consciousness which is mindless is established both by Shruti or Veda and by authoritative proof, or directly, by actual personal experience.

In the first standard or Nyaya Vaiseshika, the mind is an unconscious entity (Dravya) separate from the self (Aatma or Purusha) by conjunction with which and the senses, the self has conscious experience of objects.

In the second standard or Saankhya-Yoga, the mind is a force separate from and independent of consciousness which it apparently finitises (limits).

According to the Saakta doctrine, the mind is a form of Maaya, which is one with, and not independent of consciousness, to remain what it is and yet to contract itself into being a centre of limited experience.

In the Maaya Vaada Vedaanta, the mind is neither the first nor the second but a form of Maaya which itself is an inscrutable, unexplainable mystery.

MIND, FUNDAMENTALLY A MYSTERY

However related to consciousness, mind is fundamentally a mystery. Mind (Antahkarana) is through the sense organs (Indriyaas) affected by the objects which it selects (as Manas), refers to itself the personal experience so enjoyed (as Ahankaara) and then determines (as Budhi). The one mind does all this, but is variously named according to its various functions as separate principles or Tattvas.

In actual experience or functioning of the Tattvas in the fully evolved world, the knowing process commences with the last evolved subjective principle or the senses. The object of knowledge first knocks at this gate to be introduced within and to become subject to the inner operating principles, the last of which to so operate is the determining faculty or Buddi.

THE REVERSE ORDER IN EVOLUTION

But in the cosmic evolution of the principles or Tattvas themselves, the order is reversed * and the last to function in the evolved world becomes the first to appear according to either a temporal or logical Prius. A logical analysis of experience establishes this. The general basis of experience, to which in the functioning of the individual mind reference is made last, must necessarily in the cosmic evolution appear first. It is also clear that the evolving principles have also a more abstract significance. Thus the I-making or individualising and centre-making principle (Ahankaara Tattva) in individual experience is that aspect of the mind which refers its operations to that particular individual. Whereas in the cosmic sense it is the tendency to individualisation which manifests later as the individual centre.

* The order of evolution is Prakriti, Mahat or Bhuddi, Ahankaara. Then co-ordinately, Manas and Indriyas (10) and their subtle objects (5) Tanmatra, and from the latter the fine forms of gross sensible matter (Bhuta). These with the Purusha make 25 Tattvas.

MIND IS BHAUTIKA (Material)

The mind (as Antahkarana or the Yogadarshana Chitta) † is neither all-pervasive nor atomic and partless. It is not therefore eternal, has a beginning, and has a limited extension, that is, it is a thing of finite dimensions. It is radiant, transparent, light (Tejasa) like the solar rays, light and mobile. It is a kind of 'radiant matter'. In Vedaanta, mind is called Bhautika because it is made of the unmixed, Bhutas (Sukshma Bhutas) from varying aspects of which are derived according to the Maaya Vedaanta both matter and mind. Therefore, these two are essentially similar.* Mind (Antahkarana) is not rigid, that is, having the same configuration always, but elastic (Samkocha Vikaasa Sila). It actually goes out like a ray (though not in act of knowledge altogether leaving the body) to the object of perception, envelopes it, and takes its form. Some may call this materialism, but Vedaanta holds not that mind is derived from matter in the physical sense but that they (mind and matter) are fundamentally one, that is, pure consciousness (Chit) stressing or energising one way or the other. They are different modes of the one power (Shakti) as substance-energy. ‡

KNOWER, KNOWN AND KNOWING

Mind then exists and moves in space. This is a statement which has an important bearing on Yoga, and occultism, such as thought - transference. Even Nyaaya - Vaiseshika which regards the Manas as Anu ascribes Vega or movement to it.

All psychology recognises the trinity of knower or subject (Jnaata), known or object (Jneya) and knowing (Jnana) which is the stress or interaction between the two. The first Jnata is con-

† Chitta-memory - is a separate faculty in Vedaanta and is included in Buddhi by the Saankhya. The Chitta of the Yoga philosophy is equal to Antahkarana of Saankhya and Vedaanta.

* Chandogya Upanishad says that the lowest units of the food eaten (Anna) go to build up the body of the mind.

‡ The Maaya Sakti of Advaita - Vedaanta and Shakti Vad corresponding to the Mula-Prakriti of the Saankhya.

sciousness conditioned by mind (Antahkarana). The second is consciousness conditioned by the material object in relation to which mind energises or functions and third is consciousness conditioned by the functioning of the mind.

Consciousness being polarised into 'I' (Aham) and 'this' (Idam); there is an interaction between the two. Mind (Antahkarana) is with parts (Savayava) and can move in space. Mind is created i. e., it has a beginning. What is created is not partless, for creation is putting together of parts. Mind is a changing and differentiating thing. Mind is capable of moving from place and assuming the form of the objects of perception (Artha or Vishaya). *This going out to the object and taking its shape is actual.* Vishayakarakarita (See Brihad Upanishad; 4-3-7; Katha Upanishad—2-21.)

MIND IS AN ACTIVE FORCE

The mind (I speak of Antahkarana) is a radiant and transparent and light substance and can travel like a ray of light out through a sense organ. Mind is thus an Active Force, a form of the general active power or Sakti.* As the brain, the organ of mind, is enclosed in an organic envelope, solid and in appearance closed, the imagination has a tendency to picture it as being isolated from the exterior world, though in truth it is in constant contact with it through a subtle and constant exchange of secret activities. These exist as unconscious psychological phenomena some of which rise to the level consciousness. The mind is not, according to Indian ideas (as it has been sometimes regarded in the West) something static, passive, and merely receptive. It takes an active part in perception both by reason of its activity and the nature of that activity as caused by its latent tendencies (Samskaaras). Cerebral activity further takes place not only in the mind itself, but radiates into space beyond the limits of the human organism where it makes for itself a sphere of action. This activity may display itself either in

*Every modification (Vritti) of the root natural principle is active and moving, just as its source is. There is nothing static in nature. The mind in particular is always undergoing conscious or unconscious modification (Vritti).

perception, the matter with which we are here directly concerned, or in such occult phenomena as thought-transference, magnetism, healing and so forth. Here the mind faculty of will generates a motor force upon exterior objects.

CONSCIOUSNESS (CHIT) IS BRAHMAN

Consciousness (Chit) is everything* but it has been veiled in in the universe. It is revealed in those things in which mind is, or to which it goes out and which it illumines. Because mind is the revealer or consciousness, it is the highest manifestation in varying degrees, of the supreme power. Consciousness is eternally self-manifest. It is reflected however only by that which is capable of such reflection, just as the sun is reflected by a mirror. The mind is thus a refiner of the veil, which enables man to manifest consciousness in varying degree until by Yoga and elimination of mind, passage is made into mindless consciousness.

RADIANT MIND GOES OUT TO THE OBJECT

The following well-known passage from Vedaanta-Paribhasha gives an account of perception. 'As water from a tank may flow through a channel into a plot of land and assume its shape (square, triangular or any other form) so the radiant mind (Taijjasa Antahkarana) goes out through the eye or any other sense organ to the place where an object is and becomes transformed into the shape of that object. This modification of Antahkarana - stuff is called Vritti.† Such going out is subject to certain conditions. The

*Sarvam Khalvidam Brahma 'All is Brahman' and the Brahma Svarupa is Chit. The former is Sakti or power of Chit or rather Chit as power.

†The movement (Sancharana) and going out (Lelayate Bahih) does not apply to Chit which never goes, but to an inner stuff, which though ordinarily connected with, and dwelling within, the gross body, can extend and contract and go out and take the shape of objects. In ordinary experience the connection with the body is maintained. In Yoga, the body may be left altogether and entry

object must be *Yogya*, that is, must satisfy certain conditions in order that it may at all draw out the *Antahkarana* to itself.

On this and in this connection, Professor P. N. Mukhopadhyaya observes, "Western psychology gives us a one-sided view of perception; and external stimulus acting upon a sense organ (e. g. an ether-wave acting on the retina). The more vital side of the picture is, however, given by the above account quoted; the mind goes out as a radiant energy and takes the shape of the object.

"In the *Vedaanta* view, the stress is laid on this side of the affair, though the object's part is also recognised in the stipulation of *Yogyataa*. (For the mind does not go out everywhere and always but only when certain conditions are fulfilled, among which we may suppose the tapping on the nerves by objective stimulation, the action on the body, to be one, the mind's *Samskara* or predisposition or interest in a given perception to be another, and there may be other subtler conditions). Thus the *Vedaanta* view would appear to be a fuller view of the matter than the commonly accepted psychology of perception in the West. The 'jump' from the neurosis to the psychosis is a pretty long jump and an inexplicable one in Western psychology. The affair is explained only upto the stimulation of the *Annamayakosha* (the peripheral organs and the brain) but there is no suspicion of the really important steps in the process, viz., the reaction of the *Antahkarana* and the *Prana* (vital principle) on the *Tamasika* (veiling) crust of the object, really object-subject—the interaction—consciousness differently encrusted or veiled. The *Antahkarana* is believed to be stuff that being *Satvika* (consciousness-revealing) and *Taijjasa* (radiant) can go out and invade the *Tamasika* (veiling) crust of consciousness in the form of object (*Vishaya-Chaitanya*), envelop and infuse it by its own luminosity (somewhat like the X-rays which are themselves ordinarily invisible but make opaque things transparent) and thereby discover the essential identity between itself and the object; it is the finding out of this essential identity between consciousness as knower (*Pramatri Chaitanya*) and consciousness as the known (*Vishaya-Chaitanya*) and that between consciousness as knowing (*Pramana-Chai-*

made into another body. There is also an occult power or *Siddhi* of producing a projection of the self known as *Chhaya Purusha*.

tanya) and consciousness as object (*Vishaya-Chaitanya*) which makes the substance of perception according to *Vedaanta*."

In terms of *Shakta* doctrine, *Matri*, *Manam*, *Meya* or knower, knowing, known are the gist (*Samkalitārtha*) of the term *Shakti*. It is these three which are referred to in the triplication of the supreme point or *Bindu* in which consciousness commences to contract and thus subjectify itself as the knower of objects.

In perception, there is a feeling of directness or immediateness. This feeling of directness is and can be the import of *Chit* or consciousness or *Brahman* only. Thus in any direct apprehension of objects we are really face to face with consciousness or *Brahman* itself. All differences (*Bheda*) are so many barriers set up by the magic of the veil which is *Sakti* as *Maayaa*; in each act of perception, a barrier is momentarily removed so that the underlying and essential unity is recognised. As Professor P. N. Mukhopadhyaya well says, "Perception is thus an act of owing the self owning another which it has disowned in practice (*Vyavahara*)". As, however, he is careful to point out, this act of owning or identifying in common perception is rather a confused sort of recognition, not possessing the clear import of such owning as "*Tam Tvam Asi*" (That thou art) "*Aham Brahma*" (I am Brahman), "*So' ham*" (He I am) or as the *Saktyas* also say "*Saham*" (She I am). It is a kind of unconscious owning in actual fact, philosophically recognised by reflection, but actually realised by the supreme experience of identity to which these sayings refer.

THE REVEALING POWER OF ANTAKHARANA

The revealing power of the *Antahkarana* has its degrees. The *Antahkarana* of an ordinary man can reveal matters, whether things or processes, only within certain narrow limits; but by *Saadhana* (process by which the result desired—*Siddhi*—is attained, these limits can be more and more widened and this process is called *Sattva Suddhi*. Thus *Yogyata* or competency is relative to the state of purification of *Antahkarana*. The ordinary experiencer does not cognise directly (though he can roughly infer) the *Samskara* or tendencies laid in the *Antahkarana*, but it is claimed that a *Yogin* can and when he does, he remembers his past and future

cycles of birth. In clairvoyance and Yoga, these subliminal sensations may be known.

Mind, however, is not material in the gross sense that matter is, but in a finer and quasi-material sense. All is, in this sense, material which is not spirit (Aatma). Spirit does not interact. Mind and matter which are forms of its power do so. It is because they are at base the one and the same consciousness - power, that mind can know matter.

YOGIC EXPERIENCE

The transcendental self is realised in the ecstasy of Yoga (Samadhi) when the self 'stands away from' its limited vehicles of mind and body. This is the experience-whole of infinitely rich content. All other experience of the Supreme I is 'I am this universe'. The limited 'I' identifies himself with a particular mind and body in it. To the Yogi, the whole world is his body and therefore there is nothing outside him as in the case of those who experience through mind and body. This knowledge is bondage. They who surpass and are freed of it are mindless. But man must first use his mind. It is said 'thinking of that which is nameless the stage is reached which is called Sakta', that is the inner state of which matter and mind are the outward expression.

Vedaanta does not teach any institutionalism which discards intellect. On the contrary, the Upanishad says (Br.-Up., iv. 5). 'the self must be seen, heard, thought upon and deeply pondered. *Aatma va are drashtavah, shrotayya mantavyo, nidhidhyasitavyah*'. It is not by discarding any part of the limited self that the full self is known, but by the development of the limited self in every part and as whole into Whole. *

CONCLUSION

The fundamental peculiarity of the Advaita - Vedaanta, and, therefore, of its Shakta form, is the distinction which it draws between mind and consciousness in the sense of Chit; Chit is the

*World as Power, Power as Mind by Sir John Woodroffe.

infinite whole (Purna) in which all that is finite, whether as mind or matter is.

UNCONSCIOUS AND CONSCIOUS MIND

It is now commonly held that there is both unconscious and conscious mind. The first is described by Freud as consisting of all that real of the ego which is unknown and cannot be spontaneously recalled by the subject and which is made manifest, and then often in a disguised form only, in special psychic conditions such as dreams and can be evoked only by special methods. It is now recognised that a large part of our psychic life remains and operates in the unconscious so that we are perforce unaware of it. Conscious mind consists of that part of our psychic life of which we are aware. Unconscious and conscious mind are but two aspects of the entity, the psyche. Vedaanta and Saankhya say that mind, as such, is always an unconscious force and operation. It derives its appearance of being conscious because of its association with the conscious principle or Chit. It finitizes Chit for the individual consciousness. What is called in the West 'unconscious mind' is that state in which mind, ever associated with consciousness, is yet not in the field of awareness owing to the density of the veiling principle of Tamas. In this realm of the Western unconscious mind are all the Samskaras or tendencies acquired in the course of the life-history of the individual of which he becomes aware if and when the density of the veil is lessened.

Again the continuity of animal mind and human mind (in point of development) and the possibility of the latter's further development into super-consciousness are now recognised. The study of these different species of mind (genius, lunacy, childhood, criminality, hypnosis, trance etc.) is perhaps leading to the recognition of a generic mind (Kiranyagarbha) which is in different modes of manifestation. Using consciousness in its popular sense there is sub-consciousness, consciousness and super-consciousness or Yoga consciousness. Super-mind is Brahman. Further mind can no longer be treated in watertight compartments.

The mind at the time of birth is but a storehouse of tendencies and pre-dispositions. This is a common position now. This is also

the Vedaantic position according to which man is born with his inherent Samskaras or tendencies.

Western psychology is coming to recognise three orders of reality (a) transcendental experience; (b) pragmatic, i. e., what is useful to us and serves a practical purpose (Vyavaharika) and (c) phenomenal or apparent.

REALITY—STATIC AND DYNAMIC

According to the Shakta doctrine, the universe is a dynamism—an expression of Sakti and an infinite reservoir of power or Sakti. It is auto-dynamic as such expression of power. The ultimate reality has two aspects, one static (Chit) and other kinetic or Sakti, which is both Chit Shakti that is efficient cause as supreme will and Maaya Sakti or instrument and material (Upadana) cause. Before the manifestation of the universe, Chit and its power or Sakti were as one. Power was the mere potency of a future universe. This general potency or tendency holds within itself all the particular tendencies or Samskaras which are both the product and the producers of Karma. The impulse to manifestation is the display of supreme will which arises on the 'ripening' of those tendencies towards manifestation. The ultimate reality—which is pure consciousness or spirit—thus vests itself from out its power with a psychical and physical body which is the universe consisting of the totality of the individual minds and bodies (matter) in which the source of all power is immanent. The whole machinery of Prakriti in the Saṅkhya is automatic and Sakti is self-acting both as to original creative impulse as also as regards all in which this impulse manifests.*

VEDAANTA AND BUDDHISM

There were various religious and philosophical speculations in the country before the Buddha was born, which undoubtedly exercised a great influence upon his mind. We notice in the first place a

*Foreword to "The World as Power; Power as Mind" by Sir John Woodroffe.

class of people performing various Vedic rites and sacrifices in the belief that they helped one to gain not only the pleasures and enjoyments of this world and the next, but also liberation. Alongside of these advocates of Vedic sacrifices were others who had lost their faith in them and held that they could hardly bring about the highest bliss in life. Some of these thinkers attempted to interpret Vedic sacrifices allegorically, saying, for instance, with reference to the 'horse sacrifice' (Asvamedha), that the sacrificial horse was not an ordinary horse, but one having the dawn for the head, the sun for the eyes, the wind for the breath, heaven for the back, the intermediate space between heaven and earth for the belly, the earth for the legs, and so on.

They developed the new idea of internal sacrifice which came to be rightly known as Jnana-Yajna (sacrifice of knowledge) in contrast with the older Dravya-Yajna (sacrifice with material things). Among the followers of this system of internal sacrifice are Vedaantins as well as the Buddha.

As time went on, the authority of the scriptures, the source of Vedic sacrifices, began to lose its hold on the people. As a consequence, there arose many free and independent thinkers who propounded new systems of religious and philosophical speculation.

Even the advocates of Vedic sacrifices used to say that the offering of animal sacrifice and that of the sacrificial cake were of the same efficacy. Gradually in later ages, we find the offering of ghee and cake as substitute for animals (Ghritapasu and Pishtapasu.) And it is to be noted that at the present day, a stem of sugarcane or a pumpkin gourd (Ikshudanda or Kushmanda) is sacrificed as an animal by those worshippers who do not like animal sacrifice.

Be that as it may, a strong voice was raised by a certain section of the people against the Vedic sacrifices attended with animal-killing which were openly declared to be impure (Avissuddha.)

Although it cannot be gainsaid that theism, in whatever form it might be, got a strong hold on the mind of some people at the time we are speaking of, yet, by a large section of thinkers, it was utterly ignored.

This seems to have been due to two factors: firstly, the belief in the extraordinary power of Vedic rites grew so strong among the followers of the Karma-Marga (path of ritual) that no necessity

whatsoever was felt for the intervention of a God in bestowing the highest reward of the actions (Karma), i. e., heaven (Svarga) or that bliss which never dissappears; secondly, the Vedaantic monism declaring the existence of only one self naturally removed the belief in God also. For, if there remains only one, it is man himself or his self, as it is impossible to think of one's own annihilation. Besides, the conception of God is possible only when there is the notion of both the worshipper and the worshipped, and not otherwise.

When the Jnana-Marga (path of knowledge) of the Upanishad prevailed over the Karma-Marga, external means for achieving the highest object of life naturally gave place to performance of rites and ceremonies: this gave rise to Yoga which developed to a great extent and was being much practised in the country long before the advent of the Buddha.

Long before the Buddha, the religious life of the country had attained a very high degree of moral standard, the key-note of which was Brahmacharya, the root of all spiritual advancement.

The freedom of thought prevailing in his days helped to liberate him completely from every bondage of authority, Vedic or non-Vedic. He was independent in thought and followed reason and truth, in place of any person or group of persons, however great or experienced. He did not, however, altogether ignore public opinion in regard to some outward and trifling matters. He would ask his disciples not to accept his words simply out of regard for him, but to do so only after a thorough examination of them, just as a man accepts gold after cutting, burning, and rubbing it on a piece of touchstone. He was very practical, never indulging in mere speculation. He would never discuss any question which in his opinion was of no use to the enquirer. There are things that cannot be expressed by words, but are only to be realized by oneself. There are also truths that are too profound and difficult to be understood by ordinary people. With regard to such questions, even when pressed very hard, he would keep silent. This attitude of the Buddha was only natural; for the highest truth is in fact silence. It was declared by the sages of the Upanishads long before the Buddha: "We do not know, we do not understand how one can teach it. It is different from the known, it is also above the unknown—thus have we heard from those of old who taught us

this."* In short, he was a Sthitaprajna, one firm in judgment and wisdom, of the Bhagavad Gita. His heart was very compassionate and full of genuine and unparalleled love for all living beings, and he used to feel very strongly their sufferings. Moved by the suffering that he saw around him, he set out to discover a way of salvation, not first for himself, but for others; for he had such great compassion (Mahaakarunaa) that he did not care for his own salvation until everyone was set free from suffering.

Born in an atmosphere full of Upanishadic fragrance, he was, as the canonical works will show, a real knower not only of the Veda (Vedajna) but also of the Vedaanta (Vedaantajna) having fully practised Brahmacharya (Samyutta Nikaaya I. 168; Suttanipata 463). And, like the Vedaantists after he had attained 'supreme knowledge', he used to perform not external but internal sacrifices i. e., meditation. Once when (Samyutta Nikaaya I. 168) a Brahmin came to him taking in his hands the remainder of his oblation, the Buddha is reported to have addressed him to the following effect: "Do not deem, O Brahmin, that purity comes by mere laying wood in fire, for it is external. Having, therefore, left that course, I kindle my fire only within, which burns for ever and on that I have my mind rightly fixed for ever." "Here in this sacrifice, the tongue is the sacrificial spoon and the heart is the altar of the fire."

Referring to such Vedic sacrifices as Asvamedha, Purushamedha etc., which are attended with the slaughter of animals, he holds that they do not make for the achievement of the desired result. Hence great sages do not perform them. On the other hand, the sacrifices in which no animal, such as goat or sheep or cow is killed are of great reward and should be performed by the wise (Samyutta Nikaaya I. 76). This view is expressed by the Blessed One more than once in the canonical works.

The words Brahma-praapti (Pali Patti-attainment of Brahman) and Brahmabhoota (identified with Brahman), very well known in Vedaantism, are sometimes found in connection with Buddhism in Buddhist works themselves and there is no reason against accepting them in their Upanishadic senses though with some modification of what is known by the word 'Brahma' in the compounds. The

* (Kena. Up. 1-3-4.)

Buddha or an Arhat is often spoken of as a Brahmaphuta and if, for instance, one reads Itivuttaka., p. 57, with a considerable amount of knowledge of Vedaanta, one will naturally be inclined to take it in its Vedaantic significance. The explanation of the word 'Brahma (n)' in such cases by Buddhist authors seems to be from the sectarian point of view. 'Brahma (n)' being interpreted as 'highest or most excellent' (Seththa or Sreshtha), Brahma-Praapti is taken to mean 'attainment of the highest state,' while Brahmaphuta means 'most excellent being.'

Just as the Buddha, like some of his predecessors, including the strict followers of the Upanishads, had no faith in Vedic sacrifices especially in animal-killing therein, so like some of his other predecessors he found no place for God too in his system of religion, nor did he discuss the creation and destruction of the universe. Similarly, he had no faith in any external means by which the highest success of life could be attained and consequently, again like the same predecessors of his, he accepted Yoga and Bhaavana (meditation) for achieving that purpose, laying special stress on Brahmacharya, as in the Upanishads. He repeatedly asked his disciples to practise it for putting an end to suffering (Mahaavagga, pp, 12 ff.).

Like the Vedaantists or the Indian philosophers in general, he held that the root cause of the Samsara, from which one seeks escape, is Avidya (ignorance), though its interpretation or the process of its action may be different with different thinkers. Again, like the same Vedaantists, he maintained very strongly that suffering is due to desire, Kaama, which brings about one's bondage. This idea has found its fullest possible expression in the Hindu scriptures from the Vedas downwards. It is Kaama that binds the world; there is no other bond. It is never satisfied, nor is it ever extinguished by enjoyment of desired objects. On the contrary, it grows stronger and stronger. So a sage says in a Vedic text (Atharva-Veda IX. ii. 20): "How great in width are heaven and earth, how far the waters flow, how far fire—to them art thou superior, always great: to thee as such, O Kaama, do I pay homage". In a number of Vedic passages, Kaama is identified with fire. And it is not far to seek why this identification is made. Fire is never satisfied with any amount of fuel, so Kaama can in no way be satisfied with any

amount of its object. The sages of the Upanishads realised it fully and the following few words give expression to what they felt: "When the Kaamas that are in his heart cease, then at once the mortal becomes immortal and obtains here (i. e. in this world) Brahman."* The same or similar thoughts abound in other texts of the Upanishads and the Bhagavad-Gita is full of them.

Exactly the same view seems to have been held by the Buddha as is seen from his declaration that the root cause of sufferings is Kaama. And it is so well-known a fact that it needs no elucidation. The most significant incident of his life is that he conquered Mara, the Evil One. It is only after this that he became a Buddha. Remove all the legendary characters of the story and the bare truth will reveal itself that it was only after freeing himself from desire that he attained to Buddhahood, Mara being in the story the personification of desire. This may be compared with the well-known dialogue between Yama and Nachiketas in the Kathopanishad. If one considers the tremendous evil consequence of pursuing Kaama, it will be evident that there is no better word for its expression. Mara literally signifies what is meant by the word Mrityu (death), both of them being derived from the same root 'mri' (to die). Who is it that does not know that Kaama brings about death? The literature of the country tells the same story in one way or another.

We are told that whatever misfortunes there are, here or hereafter, they are rooted in ignorance (Avidya) and desire. Now the cessation of desire is possible only after the removal of ignorance, which requires for its own disappearance knowledge, or perfect wisdom, or perfection of wisdom.

The sages of the Upanishads solved the problem, realizing and advising that there is only the self or Aatma without a second. "I am below, I am above, I am behind, before, right and left—I am all this."§ And they declared: "If a man understands himself to be the Aatman, what could he wish or desire for the sake of which he "should pursue the body?†" For "He who sees, perceives and understands this, loves the self, delights in the self, revels in the

* Katha Up. IV. 10

§ Chh. VII. 25.I; † Brih. IV. 4.12.

self, rejoices in the self, becomes a Svaraat (self-resplendent)".‡ That being the case, there is nothing that could be an object of desire. Nor is there anything to be frightened of, for the possibility of fear is only there where there are two. For instance, there are both a tiger and a man, the latter may be frightened by the former. Thus by the realization of the Self one becomes completely free not only from desire but also from anxiety, trouble and sorrow. So it is said, "When a man understands that all beings have become only the self, what sorrow, what trouble can there be to him who once beholds that Unity?"* Thus, on these or similar grounds, the sages of the Upanishads urged: "Verily, the self is to be meditated upon."†

THE NOTION OF THE CAUSE OF BONDAGE

It is not that the Buddha did not listen to the above declarations. He did; but his perception of the Self was quite different; for he thought that instead of being the cause of liberation as held by the followers of the Upanishads, the knowledge of the Self was, in fact, the real cause of bondage. The notion of 'I' and 'mine' is the cause of bondage, and as such it must be shaken off. On the point of the necessity of release from bondage, both the Vedaantin and the Buddha are at one, but, while the former maintains that it can only be effected by the knowledge of the Self, the latter differs saying that the notion of 'I' and 'mine' can in no way disappear if there really is the existence of the Self. This led him to take quite an opposite and a very bold view that there is no Self or Aatman, as it is understood. Here it is said by his followers that if one knows that, in fact, there is Aatman, one's notions of 'I' and 'mine' or Ahankaara and Mamakaara do not disappear and consequently there is no cessation of one's suffering. For, when a man sees that there is Aatman, he identifies his body with it and there arises his lasting love for it. This love rouses thirst for comforts and this thirst prevents him from realizing the transitoriness of the objects he wants to enjoy and he loves to think that they are his and adopts means for their attainment. Where there is the notion of the Self, there arises also the notion of the other-than-the-Self and owing to

‡ Chh. VII 25.2; *. Isa. 7; †. Brih. II. 4.5; IV. 5.6.

this division of the Self and the other-than-the-Self, there spring up feelings of attachment and aversion from which all evils arise. Thus, once a devotee is said to have extolled the Buddha: "If there is the notion of 'I' (Ahankaara) in the mind, the continuity of birth does not cease, nor goes away the notion of 'I' from the mind, if there is the notion of Aatman. And there is no other teacher than you in the world advocating the absence of Aatman. Therefore there is no other way to deliverance than your doctrine." And it is said by a prominent teacher of Buddhism that as all the passions and evils arise from the notion of Aatman (Satkaaya-drishti) and the object of the notion is Aatman itself, its very existence is denied.

In order to root out desire (Kaama) attempts are made in the doctrine of the Buddha to show that there is neither the subject of desire, and if that be so, naturally desires can in no way arise. Thus there is the cessation of desire whereupon liberation or Nirvaana follows as a natural sequence.

The denial of Aatman is called Nairaatmya, literally 'the state of being devoid of Aatman.' Radically the word Aatman means nature (Svabhaava: 'own being') which never undergoes any change, nor depends on anything for its being.

This Nairaatmya is twofold: Pudgala-Nairaatmya and Dharma Nairaatmya. Pudgala is nothing but what is known to us by such terms as Sattva, Jiva, Purusha, and so on, that is, the self. By Pudgala - Nairaatmya we understand that what is believed to be a self or Aatman has no independent nature of its own, and consequently no existence in fact, and therefore it is not a thing in reality (Vastusat), but exists merely in imagination as a name, a term, a designation, a convention for serving the purpose of ordinary life. Similarly, the Dharmas or things around us, internal or external, have not their Aatman or independent nature, because they depend for their being on causes and conditions (Pratityasamutpaada). And how can that which is not in its own nature, be in the nature of others? Argument after argument has been offered in support or in refutation of this view, but to avoid prolixity, we need not discuss them here.

There being neither the subject nor the object, there is no room for desire in the case of a wise man.

This idea lies at the root of the two well-known schools of Buddhism, Vijnanavada and Sunyavada. Taking its stand on such statements of the Buddha as 'All this is nothing but Chitta,' a statement undoubtedly based on the Upanishads, the Vijnanavada postulates the existence of Chitta or 'mind' only, as the Vedaanta of Brahman only, and utterly denies all external things which are, according to it, just like the phantoms created in a dream. Impurities or passions (Kle'sas), such as desire, obstruct the attainment of liberation, and, as such, are regarded as a 'cover' (Kle'-Saa-varana). They are due to the conception of Aatman or self (Aatmadrishti), and so they must disappear only when one really understands that in fact there is nothing that can be called Self (Pudgala-Nairaatmya). Then follows liberation.

Man is steeped in ignorance about the things he sees around him, for the things he sees are not in fact what they appear to him, they being only the vibrations (Spanda) or transformations (Parinaama) of Chitta. Such ignorance is also an obstruction and like darkness, covers the knowable (Jneya), the real truth, and is known to be a 'cover of the knowledge' (Jneyaavarana)*. When this cover is completely removed by means of the right view of things, one becomes omniscient (Sarvajna).

SUNYA VAADA

The advocates of the Sunyavada who also hold the doctrine of Pudgala and Dharma-Nairaatmya or Sunyata, as explained above, teach us that there is nothing real, as everything is devoid of its innate or independent nature; that being the case, anything that appears before us depends for its being on causes and conditions. It cannot, therefore, be said that there is anything in its own or innate form (Sva-roopa). We see a thing, no doubt, but it appears to us in its imposed (Aaropita) form and not in its own form (Sva-Roopa).

Now, if a thing visible to us is only in its imposed form, of what kind is it then in reality? What is its own form? The answer

* Some would explain that as Kle'sas themselves are regarded as a 'cover', so are also the things which are knowable (Jneya).

is that it is Dharmata (the state of being a Dharma, thing). But what is Dharmata? Own being (Sva-Bhaava). What is own being? Nature (Prakriti). And nature? That which is called voidness (Sunyata). What does voidness mean? The state of being devoid of own being (Naihsvabhavya). And what are we to understand by it? That which is 'suchness' (Tathata). What is 'suchness'? Being of such nature (Tathabhaava), that is, the state of being not liable to change (Avikaritva), the state of permanent existence (Sadavasthaya)-†.

To be more clear, the Svabhaava of a thing means only that which is independent of another (Paranirapeksha) and thus, having not been before, it does not come into being (not Abhutvabhava). Therefore the Svabhaava of fire is nothing but its non-origination (Anutpada) and not its heat, because heat depends on its causes and conditions and comes into being after having not been at first. Thus there appears nothing, nor does anything disappear; nothing has an end, nor is anything eternal; nothing is identical nor is anything differentiated; nothing comes hither, nor does anything go thither; there is only dependent origination (Pratitya Samutpada), where ceases all expression (Prapanchopa'sama).

Viewing things in this light, these teachers, the propounders of the doctrine of Sunyata, which in this system implies simply the rejection of all sorts of imposition (Sarvaropa-Nirakriya), declare that anything, external or internal, that appears to us as existing is, in fact, unreal, like the imaginary town in the sky (Gandharvanagara). Thus, there being nothing internally or externally, the notion of 'I' and 'mine,' technically Satkayadrishti, disappears completely, as there is neither the subject nor the object of the notion. The disappearance of this notion is followed by the disappearance of Samsaara which has its roots struck deep in it. The sole object of the followers of the Sunyavada is to root out the notion of 'I' and 'mine', or the self and that which belongs to the self.

"One who believes in the void, (Sunyata) is not attracted by worldly things, because they are baseless. He is not delighted by gain, nor is he cast down by not gaining. He does not feel proud of his glory, nor does he hold back from lack of glory. Scorn does

† Madhyamikavritti, pp. 264-265.

not make him shrink nor does praise win him. Neither does he feel attached to pleasure nor does he feel aversion to pain. He who is not so attracted by wordly things knows what the void means. Therefore one who believes in the void has neither likes nor dislikes. He knows that which he might like, to be only void, and regards it as void only. He who likes and dislikes anything does not know the void; and he who indulges in quarrel or dispute or debate with any one does not know this to be only void nor does he so regard it." *

When by the meditation on Sunyata vanishes the idea of 'I' and 'mine' both internally and externally, all the Upadanas, 'holdings-up,' viz.; desire (Kama), wrong views (Drishti), belief in rites (Silavrata-paramar'sa), and soul-theories (Aatma-vada), also vanish. This extinction of Upadanas is followed by that of birth. Thus Karmas and passions being extinct, Moksha (liberation) is obtained.

VIJNAANA IS AATMA

The Vijnaanavada referred to above may be based on the Upanishads. This will be perfectly clear if one reads the Vedaanta in the light thrown by the older teachers as Gaudapada. In the Upanishads Brahman which is identical with Aatman is only Vijnaana (consciousness) or Jnaana. Therefore Brahnavada or Aatmavada is in fact Vijnaanavada. Somehow or other, when all these three, Brahman, Aatman and Vijnaana, are regarded as identical, the following and similar Upanishadic texts can very well be quoted as referring to Vijnaana, "Verily, all this is Aatman,"** "Brahman alone is all this,"† "All this is Brahman,"‡ "There is no diversity here. He who perceives diversity here goes from death to death."§ Thus, to say all this is Brahman or Aatman amounts to saying that all this is Vijnaana, or in other words, all this is a Vivarta, illusory manifestation or Parinaama 'transformation' of Brahman or Vijnaana. Compare this with the following words which are said to have been uttered by the Buddha himself: 'O the sons of Jina, the three planes are only Chitta.' The words Chitta,

* Siksha Samuchchaya, p. 264. ** Chh. VII.25.2. † Mund.II.2.II.

‡ Chh.III.14.I. § Brih. IV.4.19.

Manas and Vijnaana are synonymous. It is evident from the above that in both the Vedaantic and Buddhistic schools of thought, the external world has in fact no reality; and though it appears to us, this appearance itself is due to Avidyaa according to the Vedaantins, or to Vasana (mental impression), as the Buddhists would maintain. In other words, it is Avidyaa or Vasana that change Vijnaana into external phenomena as in illusion, mirage, dream etc.

When the Vijnaana does not perceive any object whatsoever, it rests only in itself. This state of resting of the Vijnaana only in itself is called Vijnaanamaatrataa. And this is, as the Vijnaana-vaadins say, Mukti, 'Deliverance.'

In the Vedaanta this Vijnaanamaatrataa is expressed in the words, Aatmasamstha-Jnaana (Jnaana that rests in itself) of Gaudapada in his Aagamasastra (III. 38). That statement of Gaudapada is undoubtedly based on such words of the Upanishads as the following (Chhandogyopanishad VII, 24, 1-2: "Where one sees nothing else, hears nothing else, understands nothing else...that is the Infinite (Bhooman)...The Infinite is immortal. The finite is mortal." "Sir, in what does the Infinite rest?" "In its own greatness or not even in greatness."

The exposition of Gaudapada (III. 46) is here very clear. Says he, "When the Chitta does not fall into a state of oblivion, nor is distracted again, nor is unsteady, nor has it any sense-image then it becomes Brahman."

BRAHMA BHAAVA IS VIJNAANAMAATRATAA

Thus the Vijnaanamaatrataa of the Vijnaanavadins is in fact the Brahmbhaava of the Brahnavadins or Vedaantins. Brahmbhaava means the 'state of Brahman' or 'becoming Brahman.' And this is the Mukti of the Brahnavadins. Therefore, on this point, which is a vitally important one, there is entire agreement between the two Vijnanavadins—the Vedaantists and the Buddhists. Or to put it in other words; the original author of the Buddhist Vijnaanavada i. e. the Buddha himself, understood the Vijnaanavada or Brahnavada of the Upanishads in the same light as adopted by such teachers as Gaudapada and the author of the Yogavasishta

Raamaayana. It is, therefore, not too much to say, at least so far as the present point is concerned, that the Buddha was really a knower of the Vedaanta, as observed above. It can further be observed, I think, that the Prapanchopa'sama of the Maadhyamikas and the later Upanishads such as the Maandukya, Vijnaana or Vijnapti-maatrataa of the Vijnaanavadins, Nirvaana of the Buddhists in general, Brahmapraapti or Brahmabhava of the Vedaantins, Kevala Jnaana of the Saankhyas, Yoga or Chittavritti-Nirodha of the Yogins, Paramapada of Vishnu in the Upanishads and the devotional literature of the country, are, in fact, different expressions of one and the same thing.

It is evident from the dialogue between Assaji and Saariputta, as described in the Vinaya (Mahaavagga 1.23), that the spirit of the truth that dawned upon the Buddha lies in his explanation of the origination and cessation of the objects that proceed from a cause. This refers to his law of twelve-membered cause of existence (Dvaada'saanga Nidaana) and dependent origination (Pratitya Samutpaada). They show the gradual origination of the whole mass of sufferings, the starting point of which is ignorance (Avidyaa), and also its cessation through the cessation of its fundamental cause, ignorance.

BODHI'S SUPREME KNOWLEDGE

Now, the cessation of ignorance depends only on Bodhi—'Supreme Knowledge,' which is in no way easy to acquire. An aspirant to it, who is known in the system by the name of Bodhisattva, is to strive for it throughout his life doing various duties. The ideal of this practice (charyaa) of a Bodhisattva is very great; indeed, there is nothing more ennobling in Buddhism than this. It is not the subtle truth nor the profound philosophy of Buddhism that attracted people of so many lands, for we cannot think that the average person understood them thoroughly and then accepted the religion; for, in the words of the Buddha himself, they are very difficult to perceive and to understand, unattainable by reasoning, intelligible only to the wise. What is it then in Buddhism that won the heart of the people? It is the noble aim to be achieved, the discipline to be observed through the whole life by a Bodhisattva for Nirvaana.

BODDHISATTVA

Before becoming a Buddha, anyone who strives for Buddhahood is a Bodhisattva, and everyone can become a Buddha. Therefore the Bodhisattva stage is the stage of discipline preparatory to the attainment of Bodhi.

The first and the most important thing in the life of a Bodhisattva is Mahaamaitri, 'great love' and Mahaakaruna'. Maitri is that love for all beings (Sarva Sattva) which a mother feels towards her only and very dear son. And the Maitri that prompts a Bodhisattva to offer his body and life and all sources of good (Kusalamoola) to all living beings without any expectation of return is Mahaamaitri.

And the thought or intention to work for the deliverance of all sentient beings, fallen into the unfathomable and unbounded ocean of Samsaara is called Karuna (compassion.) And the Karuna with which a Bodhisattva desires Bodhi or enlightenment not first for himself but for others is Mahaakaruna. We are told that the prince of Kapilavaastu, Siddhartha, when he was in the stage of a Bodhisattva, was moved not by his own sufferings but those of the world, such was his love and kindness towards it.

Therefore a Bodhisattva, with a heart full of Mahaamaitri and Mahaakaruna, knowing thoroughly the miseries, sorrows, and sufferings of the world, identifies his own happiness with the removal of the sufferings of all creatures, and meditates as follows:

"When pain and fear are not pleasant to me, as they are not to others, then how am I different from others that I should preserve myself not others?"

Thinking thus, a Bodhisattva, in order to put an end to pain and attain the height of joy, both for himself and all other living beings of the world, makes his faith (Sraddhaa) firm and fixed his mind of Bodhi, praying: "May I become a Buddha to effect the good and happiness of all sentient beings of the world and to put an end to all their sufferings." "By this good action of mine may I become ere long a Buddha, so that for the good of the universe I may preach the truth, delivering thereby all living beings, now subjected to various sufferings.

NIRVAANA

Undoubtedly he wants the cessation of suffering or Nirvaana, but first not for himself, but for others.

Extremely difficult is the path of a Bodhisattva, yet he dares to tread it out of his love for his fellow beings. He is to worship the Tathaagatas (Buddhas) and he thinks that this can be done only by serving the world. Hence he says: "In order to worship the Tathaagatas, I undertake the duties of a servant of the world. Let the multitude of people put their feet on my head, or let them kill me, let the Lord of the world (Buddha) be pleased. The kind-hearted Tathaagatas have identified themselves with the world, indeed they are seen in the form of beings; these are the only lords. Why then show them disrespect? This is the worship of the Tathaagatas, this is the accomplishment of one's own good, this the removal of the world's trouble. Let this, therefore, be my holy practice (Vrata)."

What happens to a Tathaagata (perfect man) after death? Does he continue to exist or does he cease to exist? Does he both exist and not exist, or does he neither exist nor not exist?†

Buddha felt constrained to remain silent whenever such an inquiry was pressed. He was always reluctant to commit himself to any statement in reply to any of the above four queries. The real reason is that he was not prepared to admit any of the questions—to entertain the inquiry in that form. With the inquirers, however, those were the questions that vitally concerned them. Buddha felt it necessary to explain his own position thus:

"Just as it is not possible to know whither the fire is gone which was so long burning before a man after it is extinguished once for all on the exhaustion of all materials of burning—the fuel—in the same way, it is not possible to represent a Tathaagata after he has passed away on the complete exhaustion of all materials of bodily existence and of all pre-requisites of representation of an individual as commonly known."

To say that Buddha attained Parinirvaana is the same as to say in ordinary language that he died. In his own words, to attain

Parinirvaana is to see 'the fire of life extinguished in that elemental condition of extinction which allows no residuum of possibility for reignition.'

With the Jaina, too, Parinirvaana is the last fruit or final consummation of the highest perfection attained by a man or attainable in human life. But with him Parinirvaana is the same term as Nirvaana or Moksha meaning final liberation that comes to pass on the complete waning out or exhaustion of the accumulated strength or force of Karma. With the Jaina, however, Nirvaana or Moksha is not a dreadful or terrible term like the Buddhist Parinirvaana, which suggests at once an idea of the complete annihilation of individuality of a saint after death by the simile of the total extinction of a burning on the exhaustion of the oil and the wick.

With the Jaina, Nirvaana is nothing but a highly special or transcendental condition of human soul, in which it remains eternally and absolutely free from passion, hatred, birth, decay, disease, and the like, because of the complete waning out of all causes of Dukkha.

How a Bodhisattva serves humanity is described as follows in Bodhi - Charyavata III pp. 11-14-16-21.

"May I be a lamp to those who want it, a bed for those who require it, a servant of all. May I have the power to dispose myself in various ways, so that all living beings in space may live upon me until they are liberated.

"Let whatever suffering the world has, come to me and may the merits of the Bodhisattva make it happy."

The same idea has struck its root deep in Braahmanism, specially in Vaishnavism. Rantideva supplicates fervently in the Bhaagavata Puraana (IX. 21. 12): "I do not want the highest state from God, nor do I want the attainment of the eight powers (Siddhis), nor the absence of re-birth, but I want to undergo the suffering of all beings, being in them, so that they may become free from miseries."

The following is from the prayer of Dhruva, who was asked by his beloved Lord, when he appeared before him, to choose a boon.

"I pray for the well-being of the universe; I want no boon." This idea found its fullest expression also in the following short Mantra (formula) in a daily rite called Tarpana incumbent on

† Cultural Heritage of India. Vol. V. p. 271.

every householder. "May the three worlds be satisfied. May the world including all from Brahmaa (the creator) to a stump of grass be satisfied." The sages of the Vedaas make devout prayers. "May all directions (Di'sa) be my friend."* "May all beings see me with the eyes of a friend! May I see beings with the eyes of a friend! May we all see all beings with the eyes of friend!"†

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AAYURVEDA—A SYNTHESIS OF ALL HINDU SCIENCES

Aayurveda is a science which has incorporated into it the truths of all other Hindu sciences. The word Darsana means a science—a means of acquiring true knowledge. Aayurveda Darsana accepted only such portions of other Darsanas as were tested and proved to be useful in practical application and, rejected others which were found to be impracticable or unnecessary.

I. CHAARVAKA DARSANA

Chaarvaaka Darsana represents the Indian form of materialism. The word Darsana in its original form meant perception. Chaarvaakaas accepted direct perception as the only source of knowledge.

Chaarvaakaas rejected ether—Aakasa—as an element, because ether cannot be known by perception. They maintained that, Prithwi, Aap, Tejas and Vaayu, in their atomic condition and combined in certain proportions, became transformed into a living organism. Consciousness is only a function of the body. When the particles of matter are arranged in a particular manner, they are found to show signs of life. Life and consciousness are identical. Our thinking power is destroyed with the dissolution of the elements, by

*Atharva-Veda XIX. 16.6., †Vaajasaneyi Samhitaa 36.18.

whose combination it has been evolved. So, there is nothing to transmigrate. The body, consciousness and sense organs are all momentary. The mind is merely the product of a combination of elements just as wines are the result of chemical combinations. The four elements when combined produce or manifest the mind. There is no other reality than the elements. They say that the properties of particular preparations of food and drink, conducive to the development of the intellectual powers afford another proof in favour of their argument that consciousness is a function of the body. The mind, therefore, has no substantial reality of its own, but springs out of the vibrations of the molecules of the brain. When the molecular activity of the brain sinks below a certain level, consciousness disappears and the mind ceases to exist as in sleep. When again, it rises above a certain degree, consciousness reappears. The conscious life is not a life of continuity. It is coming out of and again going into nothing. The hypothesis of a continuous stream of consciousness is a myth of divines and the theologians.

The particles which form the body are always in a state of flux and the body which performs an action at one moment does not persist in the next to feel its reaction.

The argument is unable to account for the experiences of memory and recognition. Reason demands that memory and the original experience which gives rise to it should be referred to one and the same conscious subject. This is possible only when the subject is fundamentally an unchangeable entity. This difficulty is met by the Chaarvaakaas in the following manner. The traces left by previous experiences are capable of being transmitted from the material cause to its direct product, an analogous instance being, the transference of the fragrance of musk to the cloth in contact with it. But the general answer of this school to every question is that everything happens through the influence of Svabhaava—its own nature. It is Svabhaava or a law of nature that consciousness is a function of the body.

NO SOUL APART FROM THE BODY

The Chaarvaakaas deny future or previous births. They also maintain that there is no soul apart from the body.

They deny the existence of merits and demerits acquired in our previous existence. In answer to the question that fate or destiny or Adrishta or some such thing as heredity must be admitted as the cause of the differences and determinations of the phenomenal world, they bring forward the doctrine of Svabhaava or spontaneous generation of things according to their respective natures.

MATERIALISM IN INDIA

Materialism in the form of Chaarvaaka philosophy flourished in India from very early times. Brihaspati, the Guru of Raakshasaas, was said to be the founder of the school. The prosperity of the school depended upon the propagation of different arts and sciences. This prosperity, based on Kaama and Artha, ended in corruption. They lived in an atmosphere of perfect freedom in which men and women could move without fear of conventional restrictions or religion or social usage. They accepted Dandaneeti (politics) and Vaarta (economics) as the only branches of knowledge deserving special cultivation. The earthly king became the only God for rewarding virtue and punishing vice. They ignored metaphysics (Anveekshaki) and Vedas (Trayi) as these dealt with things which are not perceivable to the senses. This extreme freedom gave birth in licentiousness and enjoyment of sensual pleasures in their gross form became the only end of human life.

Āyurveda rejected this narrow materialistic view of life and emphasised the importance of the harmonious development of Dharma (righteous conduct), Artha (acquisition of wealth), Kaama (enjoyment of sensual desires) and Moksha (self-realisation) as the ultimate goal of human life. See Praneshana, Dhaneshana and Paralokeshana-Charaka Sootra I-II.

From the Chaarvaaka Darsana, Susruta accepted Svabhaava, "nature", as one of the factors contributing to the causes of the evolution of the universe. Charaka, however, discredited Svabhaava as a cause of origin of the universe. Sootra II. 6.

Āyurveda did not accept that Chetana (knowledge) or consciousness was the result of the combination of the four Bhootas, like the intoxication caused by the fermentation caused by yeast in moist flour.

2. BUDDHA DARSANA

From Buddha Darsana, Susruta accepted Yadruccha—accident (i. e.,) origin without any cause—as one of the factors responsible for the creation and evolution of the universe but Charaka refuted it.—Sootra 11-6. Susruta, Saareera I. 11.

Āyurveda does not accept the Buddhist view that there is no soul (Aatma) apart from the body. Āyurveda, therefore, rejected the Vijnana Vaada and the Sunyavaada of the Buddhists.

Vijnana Vaada says that there is no seer (Aatma) and there is nothing to be seen. The Vijnana Vaadis, therefore, consider that all that we see around us is like the vision that we see in dreams. There is no Adhistaana (basis) for their existence. There is no reality about them. The only thing that exists is Vijnana—knowledge and that is ephemeral (Kshanika). They say that this vision disappears when true knowledge—"that there is no Aatma other than the body"—reigns supreme and that Moksha is obtained when this screen of ignorance is removed.

Sunyavaadis also say that all that we see around us is false. It is an illusion. If we desire to see the real nature of things and if we argue why a particular substance has a particular form, they say that originally there is no form or anything. It is only the circumstances or the relations that make things exist in these forms. These forms are ephemeral (i. e.,) ever-changing (Kshanika).

The whole universe is therefore a system of relations. We know nothing that is or that can be unrelated. There is no such thing as the absolute Purusha or Brahman. There is nothing unknowable behind all forms or appearances. To the Sunyavaadi, the world is only an aggregate of conditions and relations which are themselves not self-existent but, inter-dependent. Only when conceived in its totality has the world any meaning. Āyurveda rejects Sunyavaada and postulates the existence of the Paramaatma as the basis of the evolution. (Charaka Sootra 11. 6.) Susruta, however, accepted Yadruccha (accident) of the Bouddhaas as one of the factors responsible for evolution of the universe. (Susruta, Saareera 1—11.)

3. JAINA DARSANA

From the Jaina Darsana, Aayurveda accepted the plurality of Purushas (souls) but did not take anything else from Jaina philosophy.

4. VAISESHIKA DARSANA

From Vaiseshika Darsana, Susruta accepted Ishwara— (the Creator) as one of the factors responsible for the creation of the universe—See Paranirmaanam refuted by Charaka Sootra 11.6. Susruta also accepted from Vaiseshika, the influence of regulation (Niyati) and of time (Kaala) in the process of the evolution of the universe. Manas (mind) is accepted as Anu—(atomic). (Charaka Sootra 8—5.) Aayurveda accepted the Panchabhautika origin of the Indriyaas along with the Vaiseshikas. (Charaka, Sootra, 8—13). Aayurveda however, did not agree with the view of the Vaiseshikas that the atoms were themselves the cause of the universe, that Jeevaatma was omnipresent (Vibhuu) and that Abhava—negation or non-existence was the 7th Padaartha (category).

5. NYAAYA DARSANA

From the Nyaya Darsana, Aayurveda more or less accepted the utility of the 16 Padarthaas or categories of Nyaya.

By studying these 16 categories thoroughly, Nyaya Darsana says that all ignorance will be dispelled and that there will be Moksha—freedom from bondage of the mind. Of these sixteen categories, only the first two are important, namely Pramaana—means of knowledge—and Prameya—object of enquiry. All the rest indicate the course a particular discussion may take. Charaka, Vimaana, 8—34.

Aayurveda does not, however, accept the hypothesis of Nyaya that the atoms (Paramanus) are the cause of the universe (Aarambha Vaada.)

6. SAANKHYA DARSANA

From the Saankhya Darsana, Aayurveda accepts (1) the evolution of the universe from Prakriti—the unmanifested homogenous primordial entity (Parinaama Vaada—Charaka, Saareera, Chapter I.) (2) the plurality of Jeevaatmaas and (3) the 24 constituents of Prakriti (4) Aayurveda also accepts Moksha—liberation as Kai-valya — isolation by Nissangatwa — detachment. (i. e.) Nivritti Maarga—(Charaka Saareera.7.28)

According to Aayurveda, although Jeevaatmas are plural, they are not Vibhu but they are limited to their embodiments, which are obtained as a result of their Karma.

According to Aayurveda, the Indriyas are Panchaboutika (i. e.) derived from Panchabhootas, whereas according to Saankhya, the Indriyas are derived directly from Ahankaara.

7. YOGA DARSANA

From Yoga Darsana, Susruta accepts: (1) Ishwara— God as ordainer of the universe. (2) Asthaanga Yoga—the 8 divisions of Yoga. (3) Ashtaiswaryana—super-human powers obtained by Yoga Siddhi (Charaka, Saareera. 1. 1-10) and (4) self-realisation by withdrawing the mind from external objects and fixing it in the Aatma.

8. MEEMAMSA DARSANA

From the Meemamsa Darsana, Aayurveda accepts Niyati— control of the universe by a controller and the plurality of souls as in Vaiseshika, but does not accept that Moksha can be obtained only by Karma (action or sacrifice). But, Karma has to be performed as a means of acquiring Jnaana—true knowledge.

9. ADVAITA VEDAANTA DARSANA

There is some similarity between Aayurveda Darsana and Sankara's Advaita in the matter of evolution of the universe. Aayurveda accepts Brahman or qualityless Paramaatma—(Charaka.

Sootra—1-56), but only as Darshita (witness). Both have accepted the similarity of the macrocosm (the universe) and microcosm (the man) both consisting of the six ingredients (i. e.) Panchabhootas and Paramaatma. Jeevaatma is only a part of Paramaatma just as Aakaasa (ether) in a pot is a part of the whole Aakasa. By this non-dualistic (Advaita) knowledge, that the whole universe is in himself and that he is in the whole universe, Aayurveda says that man realises that he is himself responsible for all pleasure and pain and non else. "*Sarvalokamhi Aatmani Pasyatah Bhavati Aatmaiva Sukha Dukayoh Karta Na Anya Iti*" (Charaka, Saareera 5—9 and 4—22). Moksha is obtained by this knowledge of Oneness. Advaita Vedaanta says that the whole of the manifested universe is an illusion—Maaya. There is no doer (Karta); no action—Karma. Whereas Bouddhas consider that the universe is an illusion caused by ignorance (Maaya or Avidyaa), not arising out of nothing, but as a transformation (Vivarta) of Brahman which is the real basis or Adhistaana, Aayurveda accepted the Karma theory but not the Maaya theory.

10. VISISHTADVAITA DARSANA

Visishtadvaita considers Brahma as one and real and he is Saguna. He is full of good qualities. He is all perfection. The world is not an illusion. It is Prakriti that undergoes the modifications. Brahman is the potter and the clay. Paramaatma (Brahman) is Vibhu. He is infinite and Jeevaatma is Anu—atomic. Paramaatma is in every Jeevaatma. Jeevaatma is an Amsa, a part of Paramaatma like a spark of fire emanating from a furnace.

According to Visishtadvaita, Moksha is not Kaivalya or oneness with God but only unparalleled happiness called Aananda (eternal bliss), which is obtained by Bhakti (intense devotion), Seva (service) and Prapatti (absolute self-surrender to God). He who desires Moksha—release—should specialise in spiritual quest by Karma, Jnaana Yoga and Bhakti Yoga. Bhakti will secure the love of God and by the grace of God, Moksha is secured.

11. DVAITA DARSANA

Aayurveda accepts the view of the Dvaita philosophy in respect of the plurality of Jeevas and the responsibility of the Jeevaatma for his actions. Whereas Dvaita philosophy postulates that the Jeevaatma and Paramaatma are essentially different, Aayurveda says that the Jeevaatma and Paramaatma are essentially one, like the rays of light emanating from light.

Charaka accepts Karma Marga, Yoga Marga, and Bhakti Marga as steps for the attainment of Jnaana, which is essential for self-realisation. He accepts the infinite and qualityless soul—Nirvikaraa Paramaatma—and also the finite and embodied soul (Jeevaatma) derived out of one Brahman. Chakra-Sootra 1—56. Saareera 1-7-84. 2-37; 3-40-44.

12. RASESWARA DARSANA

Maadhavaachaarya, the famous author of Sarva Darsana Saara Sangraha, a compilation describing in brief all the Darsanas includes Raseswara Darsana as one of the Darsanas. Its theme is that one may obtain Moksha by the use of Rasa (mercury). Aayurveda accepts it as a tonic and rejuvenator but does not accept the claim that salvation is obtained solely by this method.

AAYURVEDA—SYNTHESIS OF ALL DARSANAS

Susruta considers that Svabhaava—"its own nature" of the Chaarvaakaas, Easwara—the creator of Yoga, Kaala—time of Vaiseshika, Yadruccha—accident of Bouddhas, Niyati—regulation of Meemaamsikas and Vaiseshikas, Parinaama—evolution of Saankhya, together as factors responsible for the creation and evolution of the universe. Susruta, Saareera Chapter 1-11.

*Svabhaava Meeswaram Kaalam
Yadruccham Niyaatin Tadhau
Parinaamamcha Manyanti
Prakritim Pradhu Darsinah.*

Susruta defines man as Karma Purusha (i. e.), an individual soul—Jeevaatma, having his own embodiment (Upaadhi), which is due to his own actions.

The scope of Aayurveda is very vast. It is not merely preservation of health. Its avowed object is to promote perfect health for the sake of Dharma (performance of duty), Artha (acquisition of wealth), Kaama (fulfilment of desires) and Moksha (attainment of self-realisation). Treatment of diseases becomes incidentally necessary because diseases are a hindrance to human effort in reaching these four aspirations of life.

*Dharmacrtha Kaama Mokshaanaam
Aarogyam Moola Mut'nam
Rogaah Tasya Hartaarah
Sriyaso Jeevitaasyacha.*

(Charaka, Sootra 1-15).

CHAPTER III

DEFINITION OF AAYURVEDA, ITS SCOPE, IMPORTANCE AND UTILITY (AAYURVEDAM ANANTAPAARAM)

AAYURVEDA - THE TOP SCIENCE

*"Ahi jnaanena sadrusam pavitramiha vidyate
Tatviddhi pranipaadena pariprasnena sevayaa."*

"Verily, there is nothing more sacred than knowledge. Learn this by prostrating at the feet of the teacher, by investigation and by service."

In order to understand Aayurveda, the student must first learn the meaning of the terminology and the language used in Aayurveda. The approach of Aayurveda to man is quite different. The spiritual outlook is very important.

If the modern scientists cannot understand some of the Aayurvedic theories, it is because of the limitations of modern science. As and when science advances, the Aayurvedic lore becomes more and more understandable. To use my expression, Aayurveda is the Top Science or the Super Science, which means that it is welcome. Scientific Research will prove this one day, because truth must always prevail.

"Satyameva Jayate."

SOURCES OF KNOWLEDGE

Science has been defined as 'specialised knowledge' or 'ascertained truth.' According to this definition. Ayurveda is a science, because that which is not true cannot form part of Aayurveda. The word Aayurveda means knowledge of the Science of Life.

In addition to the methods of experiment and observation which are the sources of knowledge in the modern sciences, Aayurveda accepts concentrated meditation and intuition as a method of acquiring knowledge. In this method of acquiring knowledge through concentrated meditation, the ideas (Bhaavas) originate from inside without the aid of any external stimulus i. e., perception through the sense organs. He who relies solely on observation thinks more of differences than of similarities. The methods of investigation in Aayurveda are more synthetic leading to oneness, Adwaita, whereas the tendency in modern medicine is more analytical leading to dissipation of ideas.

The idea that the human body is a piece of mechanism prevailed progressively during the last two or three centuries. Any disease was considered to be a breakdown in the machine, which should be set right by adjusting or repairing the damaged parts. The attention to the part or the particular organ assumes greater importance than the consideration of the whole man. Aayurveda, considers man as a complex and inseparable combination of the material body, the senses, the mind and the soul. Happiness in life depends upon the control of the senses.

Saareerendriya Satwaatma Samyogah Aayuruchyate
(Charaka Sootra.)

Nothing in Aayurveda can be contrary to direct experience. In the opening lines of his text-book Susruta says.

Aagama Pratyaksha
Anumaana Upamaanaih
Avirodham Uchyamaanam Upadhaaraya.
(Susruta Sootra 1-22.)

CHAPTER III

EVOLUTION

Whatever is stated by him is in accordance with (1) the testimony of accepted authorities (Aagama), (2) direct perception (Pratyaksha), (3) inference (Anumaana) and (4) analogy. (Upamaana) (Sootra 1-22) These four are the approved tests of accurate knowledge according to any science. In Aayurveda, anything that is contrary to reason is to be rejected.

Charaka says,

Satyam Vakshyanti Te
Kasmaath Asathyam?
Neerajah Tamaah.

(Sootra 11-19).

SCIENCE MAY START FROM ANY AXIOMS

Science is now valued for its practical advantage. A science may start from any set of axioms consistent with one another and can construct a working hypothesis of practical utility. A good scientific theory accounts for certain known facts and enables us to predict new ones which can be verified by observation and experiment.

The theories propounded in Aayurveda explain a large number of apparently disconnected facts. These theories are easily understood by Aayurvedic scholars and practitioners. Aayurveda is not only a practical science, it is also an art requiring great skill.

EVOLUTION

The evolution of the universe is a spiritual progression of inert matter into living matter and of living beings to higher and higher levels by the expansion of consciousness leading ultimately to the all-conscious—the Brahman. Evolution is not purposeless; it is expansion of consciousness and the perfection aimed at is of intangible mind and not of gross matter.

The basic elements that constitute both the universe and man are matter and spirit—Panchabhootas and Purusha.

Purusha Loka Sammyataha.

(Charaka Sareera 4-22.)

Just as there are incalculably many minute cells in the human body, so also there are incalculably many units in the structure of the universe. (Ibid, 5—4.)

He who sees the universe in himself and himself in the universe attains true knowledge of the self, for he realises that he and no one else is responsible for his own pleasure and pain. Having acquired this knowledge, he performs all his actions in a spirit of selflessness, not expecting any fruit of his actions and in consequence he attains Moksha.

PHYSICS

The universe consists of atoms which contribute to the five states of matter (not three), which correspond to the five senses of man. The states are Prithvi (solid), Aap (liquid), Tajas (radiant heat and light), Vayu (the gaseous state) and Akaasa (the spacial state). This is the Panchabhoota theory.

These five states of matter are relative. The most rarefied, the Akaasa state, which is responsible for the production of sound, is evolved from Avyakta—the unmanifested primordial state. The other states are successively evolved from the more rarified element to the more and more condensed state, until the most condensed state of matter, namely, the solid, is reached. The ideal of the complete unification of energy and matter which modern science has been attempting to establish and the synthesis of the various phenomena of sound, electricity, light, heat, taste and smell were conceived by Aayurveda at a very early date.

It is the senses of man that are responsible for the analysis of the different kinds of waves of several lengths, so as to make them cognisable as the different states of matter. In fact, it is the mind of man, acting through the senses, that classifies the phenomena and presents them to the Aatma (the soul) for recognition. If you remove the senses, there is no world and there are no states of matter for man to cognise. Having evolved from the same Avyakta (primordial matter), the states of matter are theoretically convertible from one to another. The Yogi who has attained Samaadhi (self-realisation) sees them by Pratyaksha (direct vision) and also can convert one state into another by breaking down the atomic structure.

CHEMISTRY

There are six Rasas (tastes) corresponding to the six Indian seasons, each season developing a particular Rasa to its best. The Rasas are Madhura (sweet), Amla (acid), Lavana (salt), Thikta (bitter), Ooshana (pungent), and Kashaaya (astringent).

Substances having different Rasas have different pharmacological properties. All substances may be classified according to their Rasa constitution. Generally speaking, substances having a Madhura Rasa (sweet taste) contribute most to the promotion of nutrition. The Kashaaya (astringent) Rasa is the least nutritious and the intermediate Rasas have less and less nutritious properties in the above mentioned order.

ANATOMY

According to the Saankhya philosophy, which is accepted by Aayurveda, the human body is the result of the integration of three constituents, namely,

- (a) The Sthoola Sareera, the gross material body, consisting of the gross states of matter.
- (b) The Linga Sareera or Sookshma Sareera, the subtle body.
- (c) Kaarana Sareera, the Jeevatma—the ultimate reality.

The Sookshma Sareera has 18 constituents: Mahat (intelligence), Ahankaara (sense of self), Manas (mind), five organs of sense, five organs of action and five Tanmastras (pre-atomic stages of the five states of matter).

HEREDITY

The Sookshma Sareera carries the Jeevaatma (individual soul) from one body to another. This explains the inherited tendencies in the temperaments of individuals and the extraordinary inherited skill in particular arts possessed by certain individuals.

Manojavo Dehamupaiti Dehaat

—Charaka Sareera 2—31.

These traits are called Vaasanas, or mental propensities, which go with the mind from one body to another.

PHYSIOLOGY

The normal health of a living being is based upon the equilibrium of three in-going nutrients, seven permanent tissues and three out-going types of debris. These are called the 13 Dehadhaatus. The three nutrients charged with specific properties are called Tridhaatus; when vitiated they are called the Tridoshas. They are called Vaata, Pitta and Kapha. The Sapta (seven) Dhatus are Rasa (chyle or lymph), Rakta (blood), Maamsa (muscle), Medas (fat), Asthi (bone), Majja (bone marrow, including brain matter) and Shukra (sperm or germ plasm) and the three Malas or types of debris are : faeces, urine and perspiration.

The seven tissues, Rasa, Rakta, Maamsa etc., upto Shukra are formed out of the tissues which are lower and grosser in the scale, Shukra is the final essence of the tissue metabolism. The Prasada (healthy) state of these constituents leads to health, the vitiation of them leads to ill-health.

THE THRIDHAATUS IN THE HUMAN EMBRYO

At conception, the Thridhaatus are contained in the fertilised ovum and are derived by a combination of the soul—Jeevaatma—and the several elements from both the parents. In the foetus, when the three layers are formed, the ectoderm or the outer layer is predominantly made of the Vaata type of cells, the mesoderm or the middle layer is made of the Pitta type of cells and the endoderm or the inner layer is predominantly made of the Kapha type of cells.

The ectoderm contains the sensitive points that develop into the sense organs, including the skin and the whole nervous system and this may be called the Vaata layer. We now know that the outer layer develops into the brain and the spinal cord and the whole nervous system.

The mesoderm is the precursor of the muscular, circulatory and other systems. This represents as it were the Pitta layer.

The endoderm is the precursor of the alimentary canal, the respiratory system, mucous membranes and probably also the lymphatic system. It may be called the Kapha layer.

When the foetus develops, the Thridhaatus are replenished from the Rasa of the mother's circulation and after birth through the milk, which represents Shadrasa Aahara—food having six tastes.

The plan of the 3 layer development (i. e.) of Vaata, Pitta and Kapha, is already in the first cell. It is the soul that leads the plan according to its past Karma (i. e.) hereditary factors.

KARMA - THEORY

Aneka janma samsiddhah

Tato yaati paraam gatim.

—Geeta 6-45.

Fully perfected through manifold births, man reaches the supreme goal of perfection.

The soul shapes the plan of the development of the cell and it determines what kind of organism the product is going to be (i. e.) whether it is going to develop, as a plant cell, or animal cell etc., whether it is going to develop into a stupid man (Taamasa) or an emotional man (Raajasa) or an enlightened man (Saatwika) or into a Yogi (superconscious man). Although the soul is common for all organisms, it helps the development of the different individuals in different ways by the vestures or embodiments that it assumes in the several bodies. As an illustration, it may be said that a lamp in an iron case does not shine outside at all, whereas when the same lamp is placed in a crystal case, it shines brilliantly.

An evolutionary process is going on in nature, which finally leads every organism from the state of inertia and unconsciousness to the state of all-power and all-consciousness—the Brahman. "By whatever way they go, they reach me finally."

Mama Vartma Anu Vartamte

Manushyaah Paartha Sarvasah.

—Geeta 10-11.

To put it concretely, the progress is from the mineral to the plant, then to the animal, man and God—that is—matter, life, con-

sciousness, intelligence or self-consciousness and universal consciousness (i. e.) the Brahman. At the beginning of the ladder, we have pure matter, which is inert and predominantly Taamasa (i. e.) the spirit is dormant and at the top, we have pure spirit (Buddha state) (i. e.) from dormant to enlightenment which reigns supreme. This is called the state of Trigunaateetha—a state of transcending the three Gunaas—Satwa, Rajas and Tamas. Man has to reach this state by developing self-denial (Vairaagya) and self-control (Indriya Nigraha) through constant practice (Abhyaasa).

*Abhyaasena Cha Kounteya
Vairaagyena Cha Grihyate.*

—Geeta.

NISHKAAMA KARMA—SELFLESS ACTION

This perfection is facilitated by Nishkaama Karma, that is, doing all his actions selflessly as a dedication to God; by this, attachments will disappear and the mind will be self-controlled. Peace and tranquillity will be established. This is self-realisation or Moksha.

*Santim Nirvaana Paramaam
Mat Samstaam Adhigacchati.*

—Geeta 6—13.

This upward progression may be retarded by man by his own actions. He can make or mar his progress by his own actions.

*Aatmaiva Hi Aatmano Bandhuh
Aatmaiva Ripuraatmaanaah.*

(Geeta 6—5.)

*Aatmaanameva Manyeta
Kartaaram Sukha Duhkhayoh.*

—Charaka, Unmaada, Nidaana.

Every man is the architect of his happiness or misery.

Karma is the result of the eternal energy—Aadisakti—that is responsible for all visible phenomena in the universe.

*Bhoota Bhaavodbhava Karo
Visargah Karma Samgitah.*

The emanation of the primal and eternal energy that causes the birth of beings with different names and forms is called Karma.

THE PHYSIOLOGY OF NUTRITION

Considering histologically, the human body consists of (1) in-going nutrients, (2) more or less stationary Dhaatus (i. e.) cells and tissues and (3) out-going debris.

The nutrients—Thridhaatus—in their first phase are found in the alimentary canal as digestive juices and as such they act upon the food—Shadrasa Aahaara—taken by man and convert it into their own form, out of the like portion of the food. This is called Vipaaka, which, in effect, increases the Dhaatus concerned. There are three such Vipaakaas—bio-chemical changes which augment the Thridoshas in the alimentary canal. The food which is made up of Anna, Udaka, Praana, (i. e.) solids, liquids and gaseous material, which in the Aayurvedic language is called Shadrasa Aahaara, is thus converted to Kapha, Pitta and Vaata in the different processes of digestion. The Thridhaatus are called Dhaatus, because, they support the body in their normal condition. In the augmented form, in the alimentary canal, they are ordinarily called Aahaara Rasa—food essence—and they are absorbed into the body proper and enter the first Dhaatu called Rasa (chyle or lymph). They thus get mixed up with Rasa-Dhaatu and other Dhaatus in the course of their circulation. In the alimentary canal, they are separate by themselves and detached from the tissues and debris. (Sanghaata Avasthaa and Avyaapi).

The Thridhaatus are absorbed by the cells in the mucus membrane of the alimentary canal and circulate in every part of the body. They provide the cells and tissues with all the food materials that each requires for its nutrition and growth. Therefore, they are said to be nutrient material (Poshakaas). The Thri-

dhaatus together may be described as the vital fluids or in-going, organised protoplasmic, nutrient material, out of which cells, tissues and organs are formed and also nourished. The circulation of Thridhaatus is more extensive than the circulation of lymph or blood.

But, in the pathological condition, Kapha has a tendency to get congealed and to obstruct the passages (Srotasés) and it generally damages the process of lubrication; Pitta has a tendency to become more liquid and to weaken the digestion and vitiate the other bio-chemical processes in the body and Vaata has a tendency to expand indefinitely, cause pressure and disturb the nervous activity of the vital forces in the body. This relationship of Thridoshaas and Saptadhaatus in the pathological condition, is that of Dosha Doshya—vitiator and vitiated. For further information, see Tridosha Siddhanta or Deha Dhaatu Vignaanam by Dr. A. Lakshmiopathi.

THE NOURISHMENT OF THE TISSUES AND METABOLISM

The nourishment of the several cells, tissues and organs has been explained in Āyurveda on the analogy of three illustrations (Susruta Sootra. Ch. 14—Commentary by Dhuhana).

1. The analogy of milk being converted into curd—Ksheera Dadhi Nyaya.
2. The circulation and drainage on the analogy of irrigation channels and fields of crops. Here the food is brought to each cell, which selects whatever it wants and rejects or throws out what is not of any use to it—Kedaarakulya Nyaya. The beautiful lotus draws its food from the dirty soil—Susruta.
3. The analogy of pigeons picking up whatever each wants from the thrashing floor—Khale Kapota Nyaya.

The Rasa Dhaatu goes direct to the heart and then spreads in all directions and nourishes the whole body (“Kritsnam Sareeram Tarpayati”)—Su. Soo. A. 14-2. So, it is through the medium of the Rasavaha Srotases (the lymphatics) that the nutrients—Thridhaatu Kanaas—have to traverse and reach all the Avayavas of the

body. (“Sarva Sareera Avayava Dosha Dhaatu Malaasaya anusaarini—Rasah.” Su. Soo. A. 14-5).

MENTAL SCIENCE: THE THEORY OF TRIGUNAAS

Man is the integration of the physical body and the mental body, which is the psychosomatic concept. The mental body has three constituents; Satwa—enlightening—Prakaasha; Rajas—exciting—Roshā; and Tamas—depressing—Moha (infatuation and bewilderment). The predominance of Satwa leads to harmony, of Rajas to emotion and of Tamas to depression. Rajas and Tamas when vitiated become the cause of both mental and bodily diseases.

Constitutional traits or inborn tendencies or qualities are classified in Āyurveda into three categories called Trigunaas. The constitutional factors leading to emotions are due to Rajoguna. The constitutional factors leading to inertia are due to Tamoguna. The constitutional factors leading to equilibrium or harmony are due to Satwaguna. The mental and physical characteristics of every individual in health and disease are determined by the predominance of one or the other of these three constituents called Trigunas.

A man with the predominance of ‘Satva’ in his nature is said to possess such qualities as self-realisation (Jnaana), intelligence, wisdom, (Medha), self-control (Dhriti), memory (Smriti) unattachment, truth, non-violence, forbearance, charity and love (Maitri), sympathy, freedom from greed (Aparigraha), freedom from hatred (Advesha), love, penance (Tapa), fearlessness, bravery, contentment, cleanliness, living faith in God etc. He is more or less intuitively gifted with the faculty of right perception (Yatharthā Darśee) and right conduct (Yatharthakaari) and, therefore, is competent enough to discern right from wrong. As such, he is considered by others as trustworthy or infallible (Aapta).

A man with the “Rajasic” mind has the following qualities in him—lust, passion, avarice, jealousy, hatred, arrogance, hypocrisy, ferocity, cruelty, impatience, greed, indulgence in sexual pleasures, etc., all leading him to foolish and feverish activities.

A man with the Tamasic mind has such qualities as ignorance, lack of intelligence, inertia, idleness, stupor, want of faith in God,

worry and anxiety and thus he is more or less dominated by ignorance, indolence and stupidity.—Geeta 18-26-28, Susruta Saareera 1-18, Charaka Saareera 4-37.

The Yogi, who was succeeded in transcending the Trigunas remains steady in mind and is unaffected by any emotion (Sthita Prajna). He has realised Aatma (the self) by direct vision. He is said to be perfectly healthy (Swasthah), which means literally, "placed in the self." To him, pleasure and pain, gold and stone, are the same. In this state of Samaadhi, he can perform supernormal acts such as seeing through solid and opaque walls, breaking down the atomic structure of the elements and converting one element into another, seeing at a distance, telepathy etc. Ashta Aiswarya- (Charaka Saareera, 1—20.)

PATHOLOGY—THE TRIDOSHA THEORY

The equilibrium of the Tridhaatus is health and lack of balance between them is disease. Histologically, a disease may be defined as the morbid interaction between the vitiated nutrients (Doshas) and the tissues (Dhaatus) i. e., Dosha Dhaatu Sammoorchanam.

Vaata, Pitta and Kapha, the nutritive fluids, feed the living organism through the nervous, digestive and lymphatic systems respectively. Vaata is constituted predominantly of Rajas, Pitta of Satwa and Kapha of Tamas. Their equilibrium is health and their ill balance is disease.

The Tridhaatus are to be known, both in their normal and abnormal states by the consequence of the actions for which they are responsible. Thus, according to Charaka (Sutrasthan, Chapter 18) Pitta, Kapha, and Vaayu are respectively responsible for the following. Vision (as opposed to perception which is due to Vaata), digestion, heat—production, hunger, thirst, softness and suppleness of the body, lustre, cheerfulness and intelligence are due to Pitta in its normal state, Snehanam, (oiliness) smooth working of joints, general stability of the body, general build, to Kapha in its normal state. Enthusiasm, inspiration and expiration, voluntary actions like talking and walking, the due circulation throughout the body of its supporting elements like chyle, blood etc., are due to normal Vaayu.

These functions of Vaayu are further elaborated thus by Charaka in the Sutrasthan.

Vaayu upholds all the supporting constituents and their due circulation throughout the body. It exists in five forms, viz., Praana, Udaana, Samaana, Vyaanaa and Apaana. It is the urger of all voluntary movements, great and small, the producer of restraint as well as concentration of the mind; the stimulator of all the senses and the carrier to the mind of all sense impressions; it holds together the various elements of the body in their proper form and maintains the cohesive unity of the body as a whole; it brings about speech; it is the basis of sound and touch, as well as the root matter of the organs of hearing and touch; it is the origin of joy and enthusiasm and the stimulator of Agni. It is the cause of the Doshas getting dried up and the Malas (impurities) being thrown out the body; it is the cause of the division in all vessels of the body, both microscopic and macroscopic; it is also the cause, which makes embryos in the womb to take particular forms; and it stands as evidence of the existence of life—all these are actions of Vaayu, when unexcited. In order to understand the mixing up of the ideas of matter and energy and physical and mental functions of Vaayu, Pitta and Kapha, the theory of the Thrigunaas has to be understood.

Clinically, these theories are very helpful in the diagnosis and successful treatment of the multifarious diseases of the mind and the body. These theories represent the synthetic psychosomatic conception of man, which deals with his mental and physical states, including the effects of the vitamins, hormones, toxins, antibodies and factors already known or to be known hereafter, relating to the self and the environments including those of time and place. The physiology of Aayurveda begins where the physiology of modern science ends. This means that the Aayurveda deals with the known through its science and the unknown through its intuitive philosophy.

Vaidyaratna Capt. G. Srinivasamurthi in his Scientific Memoranda to the Chopra Committee says (P. 336, Vol II.)

"To my mind, these (the fundamental chemico-physical notions of the Hindus) show in certain points striking correspondence to the most recent teachings of modern Western science. In certain points, the Hindus have gone even further in their speculations.

Will these conceptions also be justified by the future discoveries of modern science? It is rash to assert but difficult to deny. But, when we realise how some of these theories have been justified by the most recent events in modern science, one cannot help entertaining the feeling that, as some theories have already proved true, the same may happen in the case of the others as well."

ILL—BALANCE OF THE BODILY CONSTITUENTS

A number of men may drink the same water containing virulent typhoid bacilli or the vibrios of cholera. Even a fourth of the people may not get the disease and all those infected may not show the same virulence. The environment factor cannot explain the whole cause. The ill-balance of the physical or mental constitution of men appears to be necessary to explain why some are prone to to the attack of a particular disease and some are not.

Undesirable emotions such as fear or irregular habits may be responsible for excitement and vitiation of Vaata, Pitta and Kapha or of Rajas and Tamas and when the balance of these is disturbed, the pathogenic microbes may easily find entrance and cause the respective diseases.

A great deal is known about the tubercle bacillus. Some people get ill with tuberculosis, while others do not. In those who become ill, the process is arrested in some, and in others, it becomes very virulent. The notions of modern scientific medicine are very vague in many of these matters.

Ayurveda has an explanation to give. According to Ayurveda, the factor of personality is vitiated by the following reasons in the case of an attack of tuberculosis: (1) excessive strain (Sahasam), (2) irregular food (Vishamaasanam), (3) neglecting to answer calls of nature at proper time (Vegadhaaranam), (4) wasting of the vital tissues by sexual excesses (Dhaatukshayam). These four are given as the chief predisposing causes of pulmonary tuberculosis. We have, therefore, to study the whole man, the inborn tendencies and the physical and emotional conditions have to be evaluated by the study of the Thridohas and the Thrigunas and the tissues affected in order to get a correct diagnosis and prognosis. This knowledge enables the patient and the physician to

notice the earliest symptoms of the disturbance of the balance. A wise patient may avert the disease by noticing the first causes and avoiding them in the Sanchaya or the stage of accumulation of the Doshas.

Man being an integrated whole, no disease should be classified as mental or physical. The fact that physical life depends largely upon the psychic life and that the undesirable emotions are considered diseases—Raagaadi Rogas—capable of causing other bodily and mental diseases, explains the emphasis of Ayurveda on the necessity for careful study of the personality of man as a whole in making a diagnosis.

The theories of Ayurveda have not been so far verified by modern research because the instruments of science have their limitations, when they have to deal with living matter. Further research is sure to establish the truth of these assumptions, which are like axioms as far as Ayurveda is concerned. Even the illiterate people and particularly women in India understand these theories which they apply in their daily life. The practitioner of modern medicine refuses to understand them, because he has lost his moorings in Indian culture, on account of the bias that he has been taught to acquire by his new education.

There are six Kriyaakaalas or stages in each disease, suitable for treatment. The inter-action between vitiated nutrients and tissues is divided into six stages (1) Sanchaya (accumulation of the Doshas), (2) Prakopa (their excitation), (3) Prasara (their expansion), (4) Sthana Samsraya (change of place or localisation), (5) Vyakti (manifestation of the full-fledged disease) and (6) Bheda (destruction of the tissues). If the disease is diagnosed and checked in an earlier stage by treatment suitable to that stage, the disease itself may be prevented from developing beyond the stage of premonitory symptoms. These six stages of disease are comparable to the several stages of inflammation.

AAYURVEDA IS ESSENTIALLY AN AADHYAATMIKA SCIENCE

Thus, although the spirit of Ayurveda is scientific in a modern sense, it is essentially an Aadhyaatmika science—a science dealing

with the soul. Āyurveda combines philosophy with science, so that the subtle processes of life, which cannot be studied by modern scientific methods, are understood by utilising known wisdom (Buddhi) through reason (Yukti). Āyurveda is thus a superior science, as it deals not only with inert matter but also with spirit and its progressive evolution.

The scope of Āyurveda is said to be limitless. The Āyurvedist can learn even from an enemy. Āyurveda says that there are no enemies to the wise. The door of Āyurveda is ever open to all true knowledge based on experiment and observation, the deductions of which have been tested by competent judges (i. e.) scientists, and found to be sound, if these deductions are not contrary to known facts and if they are for the benefit of humanity.

*Sishta anumatah
Lokasamgraha pravrutta
Saastra vaadah—sacha
Aaptaagamah.*

(Charaka 11-27).

Therefore, Āyurveda is said to be Punarnavam, ever renewing itself by further study and research.

According to Āyurveda, the life of man is not purposeless. Man does not live for the sake of material enjoyment. He has a goal to reach through a severe discipline through the four Āshramas; Brahmacharya (bachelorhood), Grihastha (married life), Vaana-prastha (the life of a forest recluse) and Sanyaasa (a life of renunciation of all fruit of one's labours and of devotion and dedication to God).

THE FOUR ASPIRATIONS OR VALUES OF LIFE

The object of the study of Āyurveda is the satisfactory attainment of the four values or aspirations of life, Dharma, Artha, Kaama and Moksha. Moksha is a stage of perfect peace, free from all desires with complete destruction of unhappiness and pain. The attainment of this state is the ultimate object of the teachings of Āyurveda—(Parama artha).

The modern scientist cannot understand the values of life because the most delicate instruments of science cannot measure the conditions such as goodness, beauty, happiness or the super-sensory state of a Yogi. This state is beyond the perception of the five senses (Ateendriya). It is a subjective condition, which is known to the Yogi by direct perception (Pratyaksha). It is submitted that there is no room for such super-sensory matters in modern medicine. If the study of Western medical science and of the Bhagavat Geeta were combined, the result may be comparable to the study of Āyurveda. The spreading of the Āyurvedic principles throughout the world would mean the disappearance not only of the fear of disease and of wars, but also of the fear of poverty, old age, and death. For this purpose, Āyurveda is studied not merely by the Vaidyaas, for professional purposes; it was taught to all classes of people (Sarva Varnas) as a compulsory subject in order to enable them to acquire the four aspirations of life mentioned above.

MATERIA MEDICA

The Materia Medica of Āyurveda is copious. More than 70 per cent of the raw drugs of the pharmacopias of the modern world are produced in India. Āyurveda has its own pharmacology. All food materials and drugs are classified according to their (1) physical and chemical properties (Guna), (2) taste (Rasa), (3) heating and cooling properties (Virya) (4) ultimate action, after digestion (Vi-paaka) and (5) specific action (Prabhava). This classification has been found by the practising physician to be most useful clinically.

The action of the food materials depends largely upon their taste and that of the drugs is due to their specific or dynamic action. Scientists have now confirmed the efficiency of certain drugs like Punarnava, Kutaja (Kurchi) and Sarpagandha by modern scientific analysis. But a large number of drugs used in Āyurveda are still awaiting research and rediscovery.

In these days of organo-therapy, vitamins, antibiotics, bacteriophages and shock therapy, modern research may be greatly benefited by the critical study of the time-honoured Āyurvedic preparations selected from the text-books and from traditional usage. For instance, we have the following prescriptions from Vaagbhata.

(1) For disease of the blood; fresh uncooked goat's liver with bile. He also recommends for such diseases liquid expressed from horse or cow dung mixed with ghee and honey.

*Bhakshayet Ajam
Aamam Pitta Yutam
Yakrit
Gaavasva Sakrit Rasam.*

(Vaagbhata, Ch. 2-30.)

(2) For disease of the blood with enlarged glands, he recommends pigeon droppings with honey.

(3) For a cough accompanied by increased metabolism, liquid extract from the dung of a sucking calf, mixed with honey is prescribed.

The rationale of such extraordinary treatment with animal excreta has to be verified by research.

Basavaraajeevam says that 6 or 7 live bugs taken with betel leaf on three successive days will cure intermittent fevers accompanied by chill, i. e. malaria. In the Andhra country, this is used as a secret remedy by many Ayurvedic physicians.

*Nallula Varusatoda
Vidiyamu Seyan
Chelibettu Triraatra Jwaraamula
Drunchutarude*

(—Chapter 1.)

The seeds of the marking nut (Bhallataka-Semi Carpus Anacardium) ground well and soaked in cow's urine and the milk of Snuhi (Euphorbium) are strongly recommended for internal and external use in leucoderma.

The above citations show the power of observation and the spirit of research of the Ayurvedic scholars. Modern chemical and biological research is not sufficiently advanced to verify the reactions of human beings to these organic preparations, without further clinical research.

SURGERY

Even more surprising is the scientific attitude of Susruta as a surgeon. He demanded that cutting instruments be made of the best steel and sharp enough to split a hair. His antiseptic preparations before, during and after the surgical operation (Poorvakarma, Pradhaana Karma and Paschaat Karma) should excite the admiration of even the most up-to-date modern surgeon. (Susruta-Sootra—5.)

Laporotomy was performed for the removal of foreign bodies from the intestines. (Susruta, Treatment-14) Caesarian operations were performed. (Susruta, Nidaan 8-15). Skilful grafting of skin and the grafting of a live flap of tissue in plastic surgery are described in detail. Dissection of the cadaver was systematically conducted. (Susruta-Saareera 5—50) (Ashtaanga Samgraha—Sootra—35)

Anaesthesia was used in surgical operations. Bhoja Prabandha refers to a cranial operation performed on King Bhoja—927 A.D. after he had been rendered insensible by a fine powder called Sam-mohini (anaesthetic).

*Moha Choorena Mohayitwa
Sirah Kapaala Maadaaya
Tat Karotika Pute
Sthitam Saphaala Kulam Griheetwa
Kapaalam Yadhavat Aarachaya.
Sanjeevanyaaschatam Jeevayitwa.*

Saphaala Kulam is probably a tumour removed from the brain.

From Mahavaakya, we learn that Jeevaka, the personal physician of Buddha, practised cranial surgery with success. (Book VIII. 1—15)

It is stated that the Emperor Bimbissara sent Jeevaka, the brain surgeon, to the King of Egypt.

The principle of neuro-surgery, namely, of cutting the nerve at its root for a quick cure of the disease was recognised.

*Oordwa Moolam Adhah Saakham
Rushayo Purusham Viduh*

*Moola Prahaarinah Tasmaat
Rogaan Seeghrataram Jayet.*

It was known that the sensorium or the seat of the senses was in the brain (the head) and therefore the head is called the most important organ in the body.

*Praanaah Praanabhritaam
Yatraa Sritaah Sarvendriyaanicha
Yat Uttamaanga Mangaanaam
Sirah Tat Abhideeyate.*

Charaka Sootra 17—12

Surgical operations were not resorted to unless it was absolutely necessary. Shri Shankaraachaarya is said to have been treated medically for Bhagandhara (Fistula in Ano) when an operation was not advocated. (Sankara Vijaya, Chapter XVI)

CAUSES OF DISEASE AND ITS DIAGNOSIS

The diagnosis of disease was considered more important than the treatment. The principles of treatment may be briefly summarised thus: (1) remove the cause, (2) eliminate the toxins and (3) soothe the injury.

Charaka says that a physician who cannot enter into the innermost soul (Antaraatma) of the patient with the bright light of his own intelligence cannot successfully treat his disease. (Vimaana 4—14)

*Jnaana Buddhi Pradeepena
Yonaa Visati Tatvavid
Aaturasya Antaraatmaanam
Na Sa Rogaans Chikitsati.*

Charaka—Vimaana 4—19.

The superiority of Aayurveda lies in studying carefully the factors of constitution and personality and treating the man as a whole i. e., the integrated body, mind and soul.

The causes of disease are beautifully summarised in Aayurveda into three groups, viz., (i) unsuitable use of the senses—Asaatmya Indriyaartha Samyoga (ii) faulty judgment—Pragnaapaaraadha, and (iii) the effects of time—Parinaama. Research should be conducted on the incidence of the seasons (Rutus) in India and their influence on the onset of disease, and on the pharmacological properties (Rasa, Guna etc.) of food materials and drugs. Today, the methods of investigation of disease are lopsided giving no real attention to the man as a whole. The physician should develop an inquisitive outlook towards the less obvious symptoms of ill-health, so as to warn the patient from getting ill. The people should be taught self-control and self-reliance, so that the patient may observe the earliest symptoms of ill-health and correct them himself. The modern physician, who depends too much on instruments and laboratories, is unable to develop the most valuable faculty of enquiring into the earliest symptoms of disease.

DIAGNOSIS OF THE SIX STAGES OF DISEASE

In Aayurveda, the progress of disease is divided into six stages.

*Sanchayancha Prakopancha
Prasaram Sthaana Samsrayam
Vyaktim Bhedamcha yo Vetti
Doshaanaam Sabhavet Bishak.*

(Susruta-Sootra, Chapter 21-36)

It is only he who knows the six stages of Dosha vitiation, namely, Sanchaya (accumulation), Prakopa (excitement), Prasaara (extension), Sthaanasamsraya (localisation), Vyakti (definite appearance of disease), and Bheda (destruction of tissues) is fit to be called a Bhishak, (i. e.) a physician.

Even in the first stage, certain symptoms may be observed by which an intelligent patient may note the variation due to accumulation of Vaata, Pitta and Kapha individually.

*Tatra Sanchitaanaam Doshaanaam
Stabda Porna Koshtata*

*Peetavabhasta Mandhosmataacha
Angaanaam Gauravam Aalasyam
Chayakaarana Vidweshascha
Iti Lingaani Bhavanti
Tatra Pradhamah
Kriyaakaalah.*

(Susruta Sootra, Chapter 21-18.)

If Vaata is accumulated, the abdomen may become distended, full and stiff. If Pitta is accumulated, the skin, urine and stools may acquire a yellowish tint. When Kapha is accumulated, the heating mechanism in the body becomes slow and there may be heaviness and a feeling of laziness. Further, one would notice as a distinguishing characteristic "Chayakaarana Vidweshah", a desire to avoid those substances which increase the particular Dosha, that is already accumulated.

For example:—If there is accumulation of Vaata, things which increase Vaata, such as, cold air, and dry and pungent substances and any sort of movement of the part of the body is disliked by the patient and conversely, there is a desire for rest, for warm air, and for sweet and oily foods.

If Pitta is accumulated, heat, foods and conduct that increase Pitta are disliked and similarly if Kapha is accumulated, cold, moist and heavy foods etc., are disliked. There is an inclination for 'Ahaara' and Vihaara (food and habits) of the opposite nature in all the three types of accumulation of Doshas.

Both the metabolic diseases arising in the body (Nija) and the diseases caused by the invasion of microbes from outside (Aagantuka) are caused only when the three nutritive fluids are vitiated. There is immunity from diseases as long as these three constituents are in equilibrium.

Vaata acts through the nervous system and influences the directing mechanism. Pitta acts through the digestive system and influences the heating mechanism. Kapha acts through the lymphatic system and influences the cooling mechanism of the body.

The vitiation of Vaata is easily known by pain or loss of function, of Pitta by a burning sensation or perverse appetite and of Kapha by heaviness or accumulations of fluid.

HELP NATURE'S EFFORTS TO CURE

These likes and dislikes are efforts of Mother Nature to warn the patient about the impending danger. If the causes responsible for the accumulation of the Doshas are removed, the Doshas will revert to their normal state. But, if persisted in at the stage of accumulation, in which the disease has not yet commenced, the disease will pass on to the next stage of excitement (Prakopa) and is aggravated.

*Sanchaye Apahrutaa Doshaah
Lobhante Nottaraagatheeh
Te Thuttaraasu Gatishu
Bhavanti Balavattaraah.*

—(Susruta Sootra, Chapter 21)

A wise man will carefully notice, those delicate warnings of Mother Nature and avoid the causes of disease, whereas, an ignorant person will not heed them and will fall a prey to disease.

"Lakshayanti Abhudhaatu Na"

—(Vagbhata, Sootra, Chapter. 11)

LEARN TO PREVENT ADVANCE OF DISEASE

The duty of the physician here is to guide the patient to act in the right direction, because prevention is always better than cure.

*Hita Meva Anurudhyante
Prapareekshya Pareekshakaah
Rajomohaavrutaaatmanah
Priyametatou Loukikaah.*

—(Charaka Sootra 28-33)

Discerning men (Pareekshakaah) consider everything beforehand carefully and adopt only such habits as are suitable to their health and are conducive to ultimate happiness. Ordinary men of the world (Loukikaah) who are immersed or steeped in desire and ignorance

(Rajo Moha Aavruta Aatmanah) adhere only to such things as are pleasing (Priyameva) to themselves for the time being. The distinction between the two conditions of Hitam (happiness) and Priyam (pleasure) should be carefully noted. Happiness (Hitam) is that which is suitable to a person in the long run. Pleasure (Priyam) is that which satisfies the senses for the time being. Wise men prefer happiness whereas worldly men are prone to prefer pleasure.

Scientific knowledge (Srutam), the faculty of understanding (Buddhi), fortitude (Daardhyam), contentment (Trupti), suitable conduct (Hita Sevanam), purity of speech (Vaagvi Suddhi), self-control (Sama) and courage (Dhairyam) are the attributes of deserving men (Pareekshakaas) and the opposite qualities of ignorance, inability to understand things properly, want of memory, mental weakness, dissatisfaction, bad habits, insincerity, licentiousness and timidity are the qualities commonly found in ordinary worldly men (Loukikaas), steeped in desire and ignorance. (Charaka, Sootra, Chap. 28—65.) Therefore, these latter suffer from a multitude of mental and bodily diseases.

It was recognised that certain diseases such as leprosy, tuberculosis, and certain other fevers, eye diseases and venereals are caused by microbic infection through touch, water, food and air (Spirsya Abhyavahaaradoshaat.)

*Kushtam Jwarascha Soshascha
Netraabishyandha Evacha
Aupasargika Rogaascha
Samkraamanthi Naraannaram.*

—(Susruta, Kushta Nidaana.)

*Adharmena Prajaam Vartayanti
Tasmaat Udwamsante Janapadaah.*

—(Charaka Vimana.)

These infections depend largely on seasonal variations which are attributed to Adharma (improper conduct). Adharma is ultimately traced to uncleanness and vicious habits and greed, such as over-eating. The leaders behave in unrighteous and unhygienic ways and thereby epidemics break out and destroy cities and villages.

Ayurveda recognises undesirable emotions as diseases and prescribes detachment and self-control (Indriya Nigraha) for their cure. These undesirable emotions are basically six: Kaama (desire), Krodha (anger), Lobha (greed), Moha (infatuation or bewilderment), Mada (haughtiness), and Maatsarya (jealousy) known as Raagaadi Rogas.

Although Ayurveda stresses on the necessity for attention to the soul, the dweller in the body, it also gives equal importance to the healthy conditions of the body so that man can attain his four aspirations.

DIAGNOSIS OF INDIVIDUAL PERSONALITY OR TEMPERAMENT

The individual constitution (Prakriti) is an inherited condition that cannot be altered fundamentally. It is a life-long concern for every individual. This factor of individual personality is of supreme significance in determining the condition of health and disease in man. This is expressed by the following quotation from Charaka.

*Sama Pitta Anila Kaphaah
Kechit Garbhaadi Maanavaah
Drishyante Vaatalaah Kechit
Pittalaah Sleshmalaah Tadhah
Teeshaan Anaaturaah Poorve
Vaatalaadyaah Sadaaturaah.*

From the moment of conception, majority of men are equally balanced as regards Vaata, Pitta and Kapha. Some, however, have predominance of Vaata, some of Pitta and some of Kapha; of those the first i. e. those who have an equilibrium of the Doshas enjoy perfect health (Anaaturaah), —while the others have a delicate health and are, therefore, easily liable to some disease or other (Sadaaturaah.)

*Viparutagunaih Teshaam
Swasta Vritta Vidhirhitah.*

Those in whom any one of the Doshaas is predominant by birth, have to keep up their equilibrium by the use of substances having properties of Vipareetha Guna (natural antidotes to the predominant Dosha which is natural to them.) Thus, the future constitutional type of the individual is determined for him even at the time of fertilisation of the individual ovum. The constituent tendencies of Vaata, Pitta and Kapha which are natural to every individual are not ordinarily harmful to the individual, because they are habituated to the increase or decrease of these constituent Doshas, just as the poison in which an insect lives, does not injure that insect, although it may be a deadly poison to others. However, when the time for death arrives, the Doshas become powerful. They exist with the life and end with the life. *Jaatetu Gataaryushah.*

VAATE PRAKRITI—ASTHENIC OR NEUROTIC TEMPERAMENT

People with Vaata temperament generally have their skin rough and dry and their bodies slender; they have their voice rather low and indistinct. They do not have good sleep. They are talkative. They are quick to start any venture and suffer from a lot of worries. They are prone to fear, to be quick in love or hatred. They are quick in grasping things, but are also quick in forgetting them. They cannot withstand cold, shivering or fits. Their hair, moustache, nails, teeth, face, hands, feet and limbs are rough, brittle and easily cracking. The joints are creaky. Morally, they tend to be dishonest, jealous and thievish. They are generally weak, have less children and they are not flourishing either in health, or wealth, because they are incapable of accumulating money.

According to Susruta, their nature seems to resemble that of a goat, jackal, rat, cat, camel, dog, vulture, crow or ass. (Susruta Sareera. Chapter-4.)

If these qualities are overlapping and mixed up, they are called mixed temperaments, or Prakriti.

One is said to possess an asthenic or neurotic temperament when constitutionally the elements of earth and water do not predominate. Owing to lack of proper nutrition, his skin and hair are

CHAPTER III

PITTA PRAKRITI

thin and dry, (Sushksh). the organs are undeveloped and emaciated (Laghu), his body and mind are not firm (Chala), the tissues are unduly harsh (Parusha) and his nervous system is irritable. He is so much excitable that a small stimulus causes large responses in him. He loses control over himself and shows temper. Cold being depressent to vitality, cold weather, and diets and drinks of cooling nature are not agreeable to him. All such factors as tend to lower the vitality, e, g, physical or mental over-exertion, physical or mental shocks, over-work, want of sleep, abstinence from food and drink, worry and grief etc., are inimical to him. Having this fundamental defect in him, he is ill-equipped to fulfill his objects in life and is much more liable to contract diseases incidental to the derangement of Vaayu. (Dharma Dhatta)

PITTA PRAKRITI—(SANGUINE TEMPERAMENT)

Those with Pitta temperament cannot generally endure heat. They are easily susceptible to hunger and thirst, and have a tendency to the hair getting prematurely grey, to wrinkled skin or bald head. They may have also, soft, delicate hair and moustache of a dull yellowish colour (Kapila). They have good appetite eat well. They are generally very courageous and irresistible in battle, but they cannot endure much hardship. The muscles and joints are rather unsteady and loose. There may be a disagreeable smell in the armpit, mouth, head and skin. They are less virile. They are moderate in strength general or scientific knowledge and also in their means of livelihood. Susruta says that their nature seems to resemble that of a serpent, owl, cat, monkey, tiger, bear or mongoose.

An individual in whom the element of Agni, that carries on the tissue break-down or catabolism is hereditarily above the normal level, is said to have the temperament or 'Prakriti' of Pitta. When the destructive processes are comparatively more predominant than the anabolic [or building up] process, the individual has certain characteristics that distinguish him from others. Considering his physique, he consumes more food and water to make up the deficiency and also he excretes more waste products in the form of sweat, urine faeces etc.. Owing to predominance of oxidation of

the waste products, his body, skin, nails, hair etc, are clear and bright, and his build up is of the intermediary type, neither, too thin nor too fat. As a result of excessive tissue break-down, the signs of old age set in earlier in his body.

As to his mental condition, the role of metabolism being high in him, his mental responses are quick, his intelligence is keen, and his arguments are irrefutable. His mind and body are active, but neither too irritable, nor too slow.

Besides, all diets, drinks, drugs and the seasons that are of heating nature do not agree, while those diets etc., of a cooling nature agree with him (Dharma Dhatta).

THE PRAKRITI OF KAPHA-PHLEGOMATIC TEMPERAMENT

People with Kapha temperament have a full and well nourished, oily, smooth, delicate and beautiful body with strong compact and steady limbs. They have profuse black hair. They are rather slow in taking food and in their habits and actions. They are steady in the gait and are less affected by hunger, thirst, heat and sweat. They are generally well educated, comparatively rich, strong and vigorous in sex life. Susruta considers that their temperament resembles that of a lion, horse, elephant, cow bull, eagle or swan.

The person in whom the element of water is predominant over that of Agni or in whose tissues constructive process is, constitutionally, in excess of the destructive one, is said to have the temperament of Kapha. On account of natural good nutrition his body is well-nourished, well-proportioned, handsome, strong, stout, but nimble in movements. The amount of food he takes is less in comparison to the build up of his body. He can stand hunger, thirst and privation well. Mentally, he is over-inhibited and hence unexcitable; power of reproduction and capacity for forbearance and remaining unruffled is great. The persons having these characteristics often succeed in winning friends for themselves and attaining their worldly objects easily —(Dharma Dhatta.)

Ayurveda accepts, according to circumstances, the principles of both allopathic treatment, (i.e.) treatment opposite or contrary to causes and symptoms, and Homeopathy, (i.e.), treatment by similars. This is explained below.

TRIAL TREATMENT BY ALLOPATHIC PRINCIPLES

--Upasaya.

Hetuvipareetha Treatment—Allopathy—

(a) Medicine:—The administration of Sunthee (ginger)—Ushnatwa quality, in Kapha diseases caused by Seeths or cold (Seethatwa quality.)

(b) Diet:—The administration of Maamsarasa or meat juice (a form of food) in fever caused by fatigue. Here Maamsarasa is used to remove fatigue which is the cause of the fever.

(c) Hygienic conduct:—In a disease of Kapha type which is caused by excessive sleep in the day time, the act of keeping awake in the night is undertaken to counter-act Kapha.

Vyaadhivipareetha Treatment:—

(a) Medicine:—The administration of astringents in diarrhoea, the administration of 'Khadira' in Kushta (leprosy); the administration of (a specific like) Sireesha in Visha (poison). Here the medicine is given as a specific in the particular disease in a routine manner irrespective of the nature of the deranged Doshas.

(b) Food:—Taking pepper soup is useful in indigestion.

(c) Hygienic conduct:—The act of straining when passing stools is advised in Udaavartha,—a disease with severe constipation and pain in abdomen due to irregular peristalsis as a therapeutic measure.

Hetu Vyaadhi Vipareetha Treatment:—

(a) Medicine:—The administration of Dasamoola for Vatasodha i. e., an inflammation (swelling) caused by Vaata. Here, Dasamoola is the ameliorative measure for checking the cause (Vaata) as well as the disease 'Sodha' (swelling) inflammation.

(b) Diet:—The administration of Takra [buttermilk] is especially recommended in Vaata Kapha Grahanees [a sort of enteric diarrhoea]. Here, Takra checks Vaata-kapha and it is also a specific for Grahanees.

(c) Hygienic conduct:—In sleeplessness [Tandra] produced by the use of excessive Snigdha foods, the act of waking up [Jaagarana] in the night is recommended. Here, the act of keeping awake is Rooksha [opposite of Snigdha] and thus, it is the opposite of both the cause and disease.

TRIAL TREATMENT BY HOMEOPATHIC PRINCIPLES

Hethu Vipareethaardhakaari Treatment or Homeopathy :—

[a] Medicine :—In an inflammatory process of Pitta type, we recommend the external application—Upanaaha Sweda [hot fomentation or application of warm poultice] with substances or drugs that promote Pitta. This measure looks paradoxical because drugs which produce Pitta, are employed in inflammation of Pitta type.

[b] Diet :—In inflammation heading towards suppuration Pachyamaana Sotha] the administration of stimulant diet is recommended which produces Vidaaha [burning sensation] and Pitta. Here, the disease is caused by Pitta; the agents employed to effect the cure also promote Pitta.

[c] Hygienic conduct :—Threatening a patient suffering from insanity of Vaata type, threatening with the help of disguised robbers, police etc., is resorted to as a treatment. Fear which is one of the causes of promoting insanity, increases Vaata but, here, it (fear) helps the patient as an ameliorative measure.

Vyaadhi Vipareetha Arthakaari :—

(a) Medicine :—In a form of vomiting, the administration of an emetic is recommended to cure it. In diarrhoea, the initial administration of castor oil is often recommended.

(b) Diet :—In diarrhoea, milk diet, which is also a laxative according to Aayurveda, is often found useful.

(c) Hygienic conduct ;— In a form of vomiting straining to vomit more sometimes effects a cure.

Hetuvyaadhi Vipareethaardhakaari :—

(a) Medicine :—Administration of a poison to cure a case of poisoning.

(b) Diet :—In alcoholism, the administration of alcohol is sometimes recommended,

(c) Hygienic conduct ;—In Moodha Vata (a sort of Vaata disease) caused by physical exertion, swimming is recommended as an ameliorative measure.

The above 18 examples are given as instances of trial treatment which are intended to help the physician in his diagnosis of the disease.

INTRINSIC AND EXTRINSIC DISEASES

To sum up the etiology, Aayurveda holds that there are two classes of diseases i. e., intrinsic [Nija Roga] as well as extrinsic [Agantu Roga]

The root cause of intrinsic diseases is the accumulation of waste matter "Dosha" in the body. This accumulation is brought about in three ways :—

(1) Due to impairment of vitality, the tissues are rendered unfit to expel their excretions completely.

(2) Due to over-activity of the destructive phase of metabolism, a larger amount of waste products than the body can dispose of is produced.

(3) Due to over-eating and under-exercise, the tissues get clogged with incompletely oxidised products.

These three factors are called the disorders of "Vaayu", "Pitta" and "Kapha" respectively, and are said to be the essentially predisposing factors, which determine the occurrence of disease, inasmuch as in the normal condition all other etiological factors remain ineffective. Accumulation of waste matter brought about by the disorder of these three "Doshas" is in course of time, followed by infection, which seems to be an attempt on the part of nature to oxidise and to eliminate it.

Aayurveda lays greater stress on the intrinsic factors that bring about accumulation of 'Dosha' than on infection which is believed to be the incidental or the subsidiary cause of disease. Charaka says, "Fever cannot occur unless there is accumulation of "Mala" or "Dosha" in the body."

"Dehinaam Nahi Nirdosham Jwarah Samupasevate"

—(Charaka, Chikitsa. 3—12)

Hence as regards the treatment, Aayurveda lays greater emphasis on the eliminative methods than on the palliative remedies.

The disease brought about chiefly by the infection of bacteria and bacterial poisons are called extrinsic (Agantu Roga) diseases. But since bacteria cannot grow in a tissue in which the three elements are in perfect accord, some kind of elemental disorder

in the tissue must precede before bacteria can establish their foothold in it. Mostly, it is due to our errors of omission or commission (Pragnaaparaadha) that our bodies are rendered favourable to the growth of bacteria. Hence such measures are necessary as can set the internal system aright in order to make the body unsuitable for the growth of bacteria.

So far as the extrinsic diseases are concerned, in addition to these measures, the anti-bacterial therapy, the outstanding achievement of the modern science also must be taken advantage of, if we have to make Aayurveda a complete system of medicine.—Dhatma Dhatta.

REGULATE PERSONAL CONDUCT TO PREVENT DISEASE

The teachings of Aayurveda lay more emphasis on the regulation of the personal conduct of the individual, so that the onset of disease may be prevented, instead of attempting to cure it after it takes a firm hold.

*Utpannaanardha Prateekhaaraat
Anardhotpatti Pratibandha Eva Varam.*

—Roga Vignanam i—P. 85 [Tel]

An ignorant person either by his ignorance or by carelessness does not recognise the onset of disease in time in the early stages when it lies hidden and destroys the very life. The patient then succumbs to the disease like a mongoose tied to the tail of a strong bull and dragged along helplessly, Charaka Sootra,

*Tyagaat Vishama Hetoonaam
Samaanaancha Upasevanaath
Vishamaa Naanu Buddhanti
Jaayante Dhaatavah Samaah.*

—(Charaka Sootra 26-36.)

By giving up things which cause Dosha vitiation and by adopting things which produce their equilibrium, the vitiation of Doshas does not continue and their equilibrium will be restored.

RE-ORIENTATION OF HEALTH PROPAGANDA

There should be a new orientation in the public health propaganda, so, that, people may be educated to notice the earliest symptoms of disease and their causes, which lie within themselves such as their physical; emotional and moral conduct. apart from microbic infections which come from outside.

THERAPEUTIC METHODS IN AAYURVEDA

It will be seen that the principles of treatment, according to Aayurveda are valid for all time. Any form of proved utility, which may be known hereafter is welcome to Aayurveda.

The therapeutic methods of Aayurveda are primarily divided into three categories.

(1) Antahparimaajanam includes all internal treatment by food and medicines,

(2) Bahihparimaarjnam consists of all external treatments which includes bodily cleanliness. and adjustment to environment.

(3) Sastrah Pranidhaanam consists of the application of caustics, leaches, actual cautery and includes the use of all surgical instruments with the necessary skill.

The treatment is also further divided into:

(1) Daivavyapaasraya Treatment:—This is the treatment which depends upon faith.

(2) Yaktivyapaasraya Treatment:—This is the treatment which depends upon reasoning out the causes of diseases and devising suitable ways and means for its cure. It deals with the appropriate administration of food, medicines and habits in suitable combinations.

Aahara Aushadha Dravyanaam Yojano

This includes all the modern medical treatment and examination of the patient with the aid of instruments and laboratory appliances. All physical, ethical and moral treatment is included in this class. All that we now do in modern medicine comes under this head,

Satwaavajaya Treatment.—Treatment which depends on self-control developed by concentration of the mind (Chittavritti Nirodhah) by constant practice and by detachment from outside objects by Abhyaasa and Vairagya.

Summarising the system of Aayurvedic treatment it may be said that the whole procedure may be compressed in one sentence which runs as follows:—

Aayurvedic treatment consists of:—

- (1) Purging out of the offending agents.
- (2) Soothing the injured parts of the body.
- (3) Removing the causes of ill-health, in all diseases according to circumstances.

Samsodhanam Samsamanam

Nidaanasya Cha Varjanam

Etaavat Bhishajaa Kaaryam

Roge Roge Yathaavidhi.

Charaka, Vidaana.

For the attainment of these objectives, there are firstly medical and surgical treatments, secondly, there are six Upakarmaas—six methods or lines of treatment and thirdly the Panchakarmas—five procedures,

The six Upakarmaas or lines of treatment are:

- (1) Brimhanam [promoting growth.]
- (2) Langhanam [effecting reduction.]
- (3) Snehanam [lubrication.]
- (4) Rookshanam [removing fat or drying,]
- (5) Swedanam [promoting sweating or dilatation of all channels.]
- (6) Sthambhanam [promoting contraction of all channels.]

PANCHA KARMAS OR THE FIVE PROCESSES OF TREATMENT

All the procedural measures adopted in the treatment of diseases in Aayurveda are essentially grouped into two categories viz.

- (1) Brimhanam and
- (2) Langhanam.

[1] Brimhanam, also called Santarpanam is to augment the production of new tissues in the body. It is essentially a Samana treatment and it usually allays Vaata or Vatapitta combinations in body. Foods like milk, meat extract etc., and measures like rest, sleep, Snehakarmas, Anuvaasana Vasti Abhyanga etc., are Brimhanams. Brimhanam is usually employed when there is good digestion.

[2] Langhanam, also called Apatarpanam and Karshnam, is to promote depletion of Doshas or the offending agents or toxins from the body. Langhanam is to promote 'Laghu Guna' or lightness to the body. It is chiefly employed to check Kapha but it is also sometimes employed to check the other Doshas as well. Langhanam is divided into [1] Sodhana Karmas, [2] Samana Karmas.

SODHANA KARMAS—ELIMINATIVE MEASURES

These are the measures or procedures employed to purge or eliminate the Doshas from the body—According to Charaka these are four, viz.

- [1] Vamanakarma [emetics.]
- [2] Virechna Karma [purgation.]
- [3] Niruha Vati [medicated enemata.]
- [4] Nasya or Seersha Virechana [errhines.]

Vaagbhata added Raktamokshanam or blood-letting and made them five.

The Nasya may be a samana measure also.

SAMANA KARMAS—SOOTHING MEASURES

The Samana [soothing] processes of Langhanam are

- [1] Trishna Nigraha [restraining thirst.]
- [2] Maaruta [exposure to air.]
- [3] Aatapa [sunbath.]
- [4] Upavaasa [fasting-starvation.]
- [5] Paachana [administering digestives.]
- [6] Vyayaama [physical exercise,]

Vaagbhata added 'Deephana' or the administration of carminatives to the above list of Samana Karmas.

To sum up, the four Sodhana Karmas, viz., (1) Vamana, (2) Virechana, (3) Niruhavasti, (4) Nasyakarma to which is added Anuvaasana Vasti (Samana Karma), we get a group of five procedures called Panchakarmaas. These are usually employed in many diseases as preliminary measures before administration of Samana medicines in the treatment of diseases and in the Rasaayana treatment to gain positive health.

(1) Vamana is used to eliminate Kapha :

(2) Virechana is used to eliminate Pitta;

(3) Niruha Vasti, also called Aasthaapana Vasti is used to eliminate Vaata.

It is usually administered in the form of a medicated fluid as an enema or rectal injection. It is used before administering food.

[4] Anuvaasana vasti, means the process of injecting medicated oil or ghee or animal fat into the colon usually with the intention of keeping in for an hour or so, inside the bowels for its absorption. This is administered after, otherwise digestive derangement is said to result.

[5] Nasya or Seersha Virechana is to eliminate Kapha in the Srotases of the head

It is recommended that both Niruha Vasti and Anuvaasana Vasti should be administered alternately and that only one process should not be repeated many times. If Niruha Vasti is repeated continuously adverse result i. e., vitiation of Vaata itself may result.

Besides these, there is also one Vasti called Uttara Vasti, which is employed as a urethral injection for men and as vaginal injection for women. They are many forms of Vasti Karmas like Pichcha Vasti which are administered to soothen the inflamed rectum.

LANGHANAM —THE FOREMOST TREATMENT

There is a common saying,

‘Langhanom Paramoushadham’

“Langhanam thefore most of all treatment”. Although several other soothing processes are included in the Langhanam treatment the treatment by fasting is generally understood by the word Langhanam.

The technical word for Langhanam is Upavaasa. The word Upavaasa literally means Upavasateeti—Upavaasah. It means sitting by the side of the sacred fire abstaining from food and meditating upon God. Langhana treatment is for the body and Upavaasa treatments is for the mind.

The signs and symptoms of proper Langhana treatment are:—

“Flatus, urine and stools are passed freely, the body becomes light, the thorax, the eructations and throat become purified from Kapha Dosha, dullness and exhaustion disappear, there is free perspiration, liking for food returns, hunger and thirst arise together and the mind becomes cheerful.

“If Langhana becomes excessive, there will be a sensation as if all the joints are broken, pain all over the body, cough, dryness of the mouth, loss of appetite, disgust for the food, thirst, weakness of the ears, continued indistinctness of mind and error, upward motion of the Vaayu, darkness of mind, loss of strength of fire in the body.”

{Charaka Sootra Chap.22}

As a rule, Langhana treatment is not recommended in purely Vaata diseases.

SNEHAKARMA AND SWEDAKARMA

Before conducting any of the Pancha Karmas, Snehakarma (administration of ghee, oil etc., internally as well as lubrication or Abhyanga externally) has to be done and this is often followed by a suitable form of Sweda Karma (sweating process).

THE THREE ROGAMAARGAS

There are three Roga Maargas of the paths in which the Doshas are likely to be held up during their circulation in the body, producing diseases of different kinds; (1) Koshta or the alimentary canal, which is called Aabhyantara Roga Maarga (internal path), (2) Saa-khas (branches) which are (a) skin (lymph), (b) Rakta (blood), (c) Maamsa, (d) Medas, (e) Asthi, [f] Majja and [g] Sukra. This path is called Baahya Roga Maarga, [3] In the third path, the Doshas are located in the intricate localities called Marmas & in the joints

of bones (Marmaasthi Sandhis). When the diseases are rooted in Saakhas or in Marmaasthi Sandhis, the causative Doshas have to be brought down to the Koshta adopting measures of Sneha Karma and Sweda Karma repeatedly. Later, they may be eliminated from the Koshta. Sneha Karma and Sweda Karma are especially useful in chronic diseases caused by Vaata and Kapha generally.

Sometimes, Sodhana Karma is employed to counteract the Vega (movement) of the Dosha, e. g. Virechana Karma (purging) is employed in Oordhwagata Raktapitta (haemorrhages from nose mouth etc). Besides these measures, there are many forms of treatment like Varthi (medicated pessary or suppository), Dhooma-pana (smoking medicated substances), Gandhoosha (gargles and Anjana (collyrium) etc.

All the above forms and processes of treatment are included and classified into the three (1) Antahparimaarjanam (internal purification), (2) Bahih Parimaarjanam (external purification), (3) Sastra Pranidhaanam (surgical operations).

TREATMENT BY FAITH

Although the ways and means of attaining the desired object may be slightly different, the system of Aayurvedic treatment is generally similar to the modern medical treatment now followed all over the world. This is to help nature to remove the injurious substances, whether they consist of invisible microbes, invisible viruses or subtle mental emotions.

In addition to the above methods of treatment, Aayurveda includes Daivavyapaasrayam and Sattwaavajayam treatments which are of the nature of the mental and spiritual training of the individual. In the wide field of operation, Aayurvedic treatment differs from modern medical treatment.

The Aayurvedic physician combines in himself the role of a phych-therapist and a moral and a spiritual adviser to the patient.

Alexis Carrel, the great scientist, Nobel laureate, says that he actually saw a case of tuberculous peritonitis in a woman cured by treatment by faith.

We should not make the mistakes committed by the Western nations. The emotions of a man should receive greater attention of the physician than the material comforts. It has now been proved by experiments that emotions like jealousy and anger work more powerfully than medicines administered to man. Faith is an extraordinary emotional condition, which, in the state of ecstasy, may cause great changes in the functions and even in the structure of the body, in health and disease.

FIRE WALKING BY KUDA BUX

A young Kashmeeri Mohammadan by name Kuda Bux baffled a London audience in a Snrrey garden consisting of medical men, who examined his feet before and after, by walking across a trench of glowing fire —12 feet long, 6 feet wide and 8 inches deep. The surface temperature of the fire measured 800 degrees Fahrenheit. Bux's feet were found to be of the same temperature before and after walking on the fire. ["The Hindu", 30th September 1936.] Two Englishmen, who attempted to walk after him jumped off, after walking a couple of steps with their feet considerably blistered Bux said "Faith can make you do anything."

Fire walking is a common annual feature in India, both in temples and mosques. But, those who have no faith will surely have the feet burnt badly.

RASAAYANA AND VAAJEEKARANA TREATMENTS

Aayurveda pays special attention to improving the natural processes of resistance not only to disease but also to prevent old age and to preserve youthfulness and sexual vigour. The underlying theory is that, if the waste products of tissue metabolism are removed from the body, and if it is made quite free from these waste products, youthfulness may be preserved. Physical purity and mental purity are both required. Just as there are special foods and drugs for promoting nutrition of the physical body, so also there are special foods and drugs for promoting the nutrition of the mental and spiritual body. For details of

Rasaayana and Vaajeekarana treatments, refer special chapters on these subjects.

HYGIENE

According to Aayurveda, prevention of disease is effected by inculcating perfect cleanliness through a severe discipline of man from birth for developing self-control (Indriya-Jayam).

The first step in the discipline is to get up from bed early in the morning and then to clean the teeth, paying special attention to each tooth separately and not injuring the gums. Even the tooth brushes are to be secured fresh, every day from the twigs of trees, possessing anti-septic and astringent properties. These should be suitable to the constitution of the individual and appropriate to the disease from which he may be suffering.

Great importance is attached to diet, regular exercise, massage and baths. All these promote cleanliness.

Everyone has to do the duty assigned according to his inborn qualities and capacities (Guna Karma Vibhaagasah). Selfless devotion to one's duties for the good of humanity (Loka Sangraha Mevaapi) promotes the greatest happiness for oneself and for the society and lead to Paramaatha i.e. the ultimate goal of salvation (Geeta 18—45—47.)

This happiness lies in the contentment (Santosha) or the satisfaction of being serviceable to the world. *Paropahaaraardhrm Idam Sareeram* is the motto.

THE FACTOR OF PERSONALITY— PREVENTION OF ALL DISEASE

Unlike the machine, Man has mind, Manas—Manava is one who has a mind. He has the power of thinking and deciding his future conduct. The decision depends upon the personality of every individual, which is inborn in all living creatures and persists as long as the organism lives. It is often transmitted to the offspring.

The genius of Aayurveda is more to train by strict discipline the mind and sense of man than to perfect the machinery external

to himself. The theory is that such training of the personality to perform selflessly the duties assigned to each man by nature, according to his qualities and capacities (Guna and Karma Vibhaagasah), and to perform those duties with detachment and for the good of humanity, is conducive to the greatest happiness of body and of mind. Differentiation into groups according to capacity is the rule of nature. [Geeta 4—13]. This is unsurmountable. The work of each man is determined by his qualities [Trigunas]. The salvation of every man lies in performing Swadharma, i. e. doing his duty to the best of his peculiar abilities. The happiness that comes in the satisfaction of having done one's duty selflessly includes freedom from fears of disease, of old age and death.

The Sanskrit word 'Sukha, [happiness] is derived from Su [good and Kha [the Indriyas or senses]—Sukha meaning equability of the senses. Permanent happiness is obtained by the control of the senses. The most important thing in this is detachment, [Charaka Saareera 7—23]. Self-discipline [Jitendriyatwa] is the master key for the prevention of many diseases of mind and body.

EMOTIONS CAUSE DISEASE

Emotions like anger, greed and hurry are potent sources of disease. These are called Raagaadi Rogaas. Desire produces anger. Anger results in infatuation; both have their origin in Rajas [Gita]. The senses, mind and intellect are the seats for these emotions. Therefore, one should develop control over these emotions, which are the worst enemies of man. Otherwise, all material and spiritual knowledge will be useless.

*Kaama Esha, Krodha Esha,
Rajoguna Samudbhavah
Paapmaanam Projahi Hyenam
Jnaana Vijnaana Naasananam.*

(Geeta—3.)

As I said already, prevention of disease is thus effected in Aayurveda through strict discipline of man to develop self-control, Aayurveda teaches not only to live a happy life, but also how to be a happy death with detachment, contentment and peace.

Charaka summarises the ways and means of keeping Arogya [good health] as follows :

Those who are always healthy.

*Naro Hitaahaara Vihaarasevee
Sameekshya Karee Vishayeshvasaktah
Daataa Samah Satyaparah Kshamaavaan
Aaptopaseveecha Bhavatyaroga
Matir Vachah Karma Sakhaanu Bandham
Satwam Vidheyam Visadaacha Buddhih
Graanam Tapah Tatparataa Cha Yoge
Yasyaasti Tam Naanutapanti Rogaah.*

One who is accustomed to suitable diet and habits, who always acts after proper reflection, who does not entangle himself in the objects of his senses, who is charitable, who is devoted to truth, who is forgiving, who serves with humility all who are wise and who is contented with what he possesses.

[Charaka Share era 2, 46, 47]

In other words one who has a happy combination of his thought, speech and action, who has his mind under control, who has his intellect clear and who possesses knowledge of the soul and is devoted to austerity and Yoga never suffers from any disease.

Those who are always unhealthy [Sadaaturaah.]

*Sadaaturaah Srotريا
Raaja Sevahaah Tadhaiva Vesyah
Api Panya Jeevibhih
Sa Daiva Tehi
Aagatha Vega Ntgraham
Sadaa Acharante
Nach Kaala Bhojanam
Akoala Nirhaara
Vihaara Sevinah
Bhavanti Ye Anyepi
Sadaa Aaturaah Ghate.*

(Charaka Siddhi 11—27—30)

Orthodox Brahmins, Kshatriyas in the king's immediate service Vesya (prostitutes) and petty traders are among those who are always unhealthy—for reasons stated below.

These four classes of people and others who likewise do not care to attend to the calls of nature at the proper time, who never have their food at proper time suffer from constipation (Vibandha), all sorts of pains and other diseases in the several organs of the body indefinitely and are, therefore, always unhealthy.

An orthodox Brahmin, on account of his being constantly engaged in the study of Vedaas, and his devoted attention to his religious rites, does not attend in time to the essential needs of his body and is, therefore, always unhealthy.

A Kshatriya in the immediate service of the king, on account of his devoted attention to obey his orders, on account of his being answerable to many high state officials, on account of his being worried in his mind with something or other which is always urgent and on account of fear, does not care to attend to the essential needs of his body and is, therefore, constantly unhealthy.

A Vesya, who lives by prostitution (Paraangana), who has always to be on the alert to please her paramour, who is always busy in decorating herself with jewels and who has to pay scrupulous attention to her toilet (Mrujaa Nirataa), does not care to attend to the essential needs of her body and is, therefore, always unhealthy.

A Vaisya who always sits in one place (Sadaasanaath) and who is always greedy in buying and selling does not care to attend to the essential needs of his body at proper time, and does not have his meals at proper time and is, therefore, always unhealthy.

These four examples in the four Varnas or classes of people are given as illustrations of those who are always unhealthy.

OVER-EATING—THE ROOT CAUSE OF WARS

Charaka propounds the theory that slight over-eating i. e. the eating of a little more than is needed, by those who possess more than they require, is the root cause of wars. The following is his line of reasoning.

In the Satya Yuga i. e. at a period when every man ate just what he wanted, everyone was happy. But as time passed, some

people ate a little too much, simply because it was available. The result was that their bodies became heavier, they became easily tired after performing their usual work (Shrama). On account of weariness, they became lazy (Aalasyam). Then they developed a desire to accumulate food and other articles for future use i. e., hoarding (Sanchaya). On account of the desire to accumulate, there arose possessiveness (Mamata). On account of possessiveness, there arose greed (Lobha).

In the second stage, on account of greed, the desire arose to accumulate more by deceiving others (Abhidroga.) On account of the desire to deceive others, there arose falsehood (Asatya) and falsehood gave rise to many passions, such as lust (Kaama), anger (Krodha), pride [Mada], hatred [Dwesh], haughtiness [Paarushya] injury [abhighaata], fear [Bhaya], excitement [Taapa], grief [Shoka] and mental perturbation [Chittodwega], etc.

The leaders, who are thus perturbed in mind, lead followers into Adharma [unrighteous conduct]. On account of Lobha, Krodha and Moha, they insult weaker people and have recourse to violence with deadly weapons, ending in wars between countries, classes and races. They, thus, either destroy others or be destroyed by others in the struggle. In this manner, Adharma [unrighteous conduct] which starts with greed in slight over-eating, leads to wars between nations. [Gharaka-Vimana 3—26]

This carries its own lesson.

DOMESTIC MEDICINE

It is not always that the aid of the physician is sought in our country, immediately after the appearance of the first symptoms of disease. The people are able to classify the symptoms of the predominance of Vaata, Pitta and Kapha respectively and apply some domestic remedies such as ginger, pepper, garlic, neem, asafoetida and musk, whose properties are well-known to them, to check the respective fault in the earliest stage [Kriyaakaala] of the disease. This brings about the equilibrium which makes the invading agent powerless to grow in the unsuitable soil. Immunity is thus acquired in many instances. Modern research should help to enlighten us on

the rationale of these domestic remedies, some of which are not yet even recorded in the text books on Aayurveda.

According to Aayurveda, there is nothing in the world which may not be used as a medicine ("Na Jagati Anoushadham"—Charaka). It all depends upon the capacity of the physician to discover and utilise the available material as a medicine or as an article of diet or otherwise. Modern medicine appears concerned with advertisements of more and more medicines of doubtful value to cure diseases, whereas in the long run, the purpose of medical science should be to empty the hospitals. For this reason, Aayurveda was traditionally taught to every man and woman in India. Valuable aids to health such as massage, regular manual labour, games, recreation and prayer etc., in Aayurveda constitute the daily routine (Dinacharya) of every citizen. Physio-therapy which promotes positive health is badly neglected in modern hospitals and medical colleges.

SUPREME GOAL OF A MEDICAL PRACTITIONER

The supreme goal of a medical practitioner lies in selfless devotion (Nishkaama Karma) in his own profession. He can attain the highest Dharma by protecting his patients with tender care, as his own children. (Swasutaaniva Yatnavaan—Susruta),

Charaka says that a physician who, for the sake of his livelihood, sells treatment as an article of trade, throws away heaps of gold and collects clods of mud in return for them. He on the contrary, who devotes himself to the giving of treatment freely out of compassion for living creatures attains the highest happiness (Moksha), because there is no other gift in the world superior to the gift of life.

THE HINDU IDEAL OF SELF-SACRIFICE

Self-control (Indriya Jam), self-reliance (Atma Viswaasa) and self-sacrifice (Atma Yagna) are the cardinal principles which should guide a man for the fulfilment of the purpose of life. In fact, the Aatmayagna enjoins an individual to treat his daily

routine of life as a great Yajna or a life of devotion and dedication to the immortal Ātma.

The Ātma Yajna is the most sublime interpretation of the purpose in the life of a wise man. It is compared in very detail to the rituals and ceremonies that the officiating priests conduct in the performance of the Yajna where animal sacrifice is offered to please the Gods. Here there is no shedding of the blood of the sacrificial goat. The main points of comparison are mentioned here:-

In the Ātmayajna, the Ātma as the performer is the Yajamana—the master. The officiating priests are his several sense organ (Jñānendriyas) and also the organs of action (Karmendriyas) Agni—the sacrificial fire—is the Tapas or concentration and devotion. Anger is the sacrificial goat and it must be burnt with the clarified butter—namely—the desires. The period of Deeksha—duration of observance—is from birth to death without break that is, the whole life time of the individual. Whatever he eats and drinks to sustain life is the sacrificial food and Soma juice. The wisdom that dawns as a result of such dedicated life shines in him with full effulgence. Such a noble life of dedication is rightly compared to the Satrayaaga of the Kings, where Rishis officiated as priests and in which every earthly possession of the performer (Sarvam) was given away in charity.

We give below the text in Ātma Yajna.

Tasyaivam Vidusho Yajnyasyaatmaa—Yajamaanah.
Sradhhaa, Patnee—Sareeramidhmam—Urovedirlomani
Barhir Vedah Sikhaa Haridayam Yoopah Kaama Aajyam
Manyuh Pasustapo, Agni Damassamayitaa Vaak; Hotaa
Pranaa-Udgaataa Chakshuradhwaryur Manobrahma
SrotamAgni Dyaavaddhriyate Sa Deekshaa—Yad Aanaati
Tad Havih, Yat Pibati Tadasya Soma Paanam etc.

The same idea of sacrifice of the food which a man eats as a Homa into the internal fire is expressed by Charaka in the following slokas.

(Sootra. 27—343)

*Hitaabhih Jahooyaat Nityam
Antaraagnim Samaahitah
Annapaana Samidbhih
Maatraakaalou Vichaarayam.*

Every man, who keeps in his mind, the proper measures of his food (Maatrā) and the time (Kaala), should every day (Nityam) perform the sacrifice (Jahooyaat) or Homa, with concentrated attention by making use of the fuel namely, the food in the form of cooked rice, and ghee and milk etc., (Annapaana) suitable to his own constitution.

*"Shat Trimsat Sahasraani Raatreenaam
Hitabhojanah
Jeevati Anaaturo Jantuh
Jitaatma Sammatah Sataam*

(3—46)

One who has self-control and takes his food in the above manner lives a happy life without any disease thirty-six thousand days (100 years) respected by all.

LIMITATIONS OF SCIENCE

The theories just enumerated may be explained to some extent in the light of modern scientific methods. It is in the scientific attitude of mind more than in the scientific results that the value of modern science is to be found. If there is any portion of Āyurveda, which cannot be identified with some branch of the Western system, it should not be considered fit only to be neglected. In fact, it is in the spirit of science that the value of Āyurveda lies. It should be noted that modern science itself has its own well known limitations, particularly when it tries to explain the phenomena of living matter. Even most delicate experiments and observations of modern science are too crude and too superficial to deal with matters relating to life, which is the subject of Āyurveda. The problems with which science deals at present are intrinsically inferior in human interest (Prajaahitam). Further, the modern scientific method is not the only method acquiring knowledge of reality.

Eminent scientists have accepted that a true and scientific theory merely means a successful working hypothesis. It is highly probable that all scientific theories may be wrong. Truth in science is a pragmatic affair. What a scientific man means by truth,

is, in the last resort, convenience. A good scientific theory accounts for known facts and enables us to predict new ones, which are then verified by observation. (The Limitations of Science, by J.W.N. Sullivan, 1949—Mentor book published by New American Library] Ultimate values such as Dharma [duty or virtue], Purushartha [purpose in life] and Sukha [human happiness], with which Aayurveda deals, cannot be measured by any instruments known at present to modern science. Nor is it possible for every person to study and practice Yoga [concentration on the inner self], unless he has the necessary preliminary qualifications [Adhikaara], for such study. He must also secure a proper teacher [Guru]. These theories of Aayurveda, have been accepted not as a matter of faith, but because, as I already said, they are proved by the four methods of investigation [Pramanas] and because also they are of great utility in actual experience. Aayurveda is an unqualifiedly practical science and so cannot be contrary to direct experience [Pratyaksha Avirodha]. Whenever it is not possible for an ordinary man to verify certain facts by direct perception, he must naturally be satisfied with the statements of Aaptas—those known to be the best authorities on the subject.

POSITIVE HEALTH IS NOT GOT BY MEDICINE

The growth of industrial civilisation all over the world is leading the Western nations towards their downfall. The sons of many rich men in America today possess wealth without having had to earn it. They never struggled against their environment as the poor villagers do. "Wealth is just as dangerous to health as poverty. Modern civilisation with all the comfort, soft living, hospitals, physicians, nurses, and sanitary fittings has kept alive many human beings of poor quality. These weaklings and their descendants". Alexis Carrel says "contribute in America, in a large measure to the enfeeblement of the White races." He says, that they are witnessing the physical, intellectual and social failure. "They are now realising that they have been living under a delusion. They have begun to understand that they are decaying when compared to the hardy races" [Man the Unknown—P. 198] They are now attempting to mould the younger generation with a different ideal.

MODERN MEDICAL SCIENCE CREATES ARTIFICIAL HEALTH

Industrial prosperity on the one hand and modern medical science on the other, have created a kind of artificial health instead of inherent resistance to disease. Injections of a specific vaccine or a serum for every disease may give temporary relief but it cannot be effective as a means of developing positive national health—Good health should be natural. The survival of the nation should not depend on the physicians. Inherent resistance to disease should depend on the positive strength of the individual. Disease is nothing but the development of the defensive processes which oppose the invasion of the body and the struggle of the tissues and the mind against a disturbing agent. For instance, fever is the reply of the body and the mind to the presence of bacteria and viruses or toxins.

MODERN CAUSES OF DEGENERATIVE DISEASES

Modern medical science has been weighed and found wanting. In spite of all the hygiene and comforts, "the modern educated man dies suddenly in bed or in the office at an age, where his parents were tilling the land or managing their business vigorously,"—Alexis Carrel. In place of infective diseases, which the White races have conquered, degenerative diseases such as softening of the brain, diabetes, heart and kidney diseases have cropped up. It is easy to conjecture that this premature wearing out of the modern man is due to mental worries, lack of economic security, overwork, absence of physical and moral discipline and excesses of all sorts without self-control. Modern comforts and habits imposed upon the dwellers of the present day cities do not seem to agree with natural laws. Their health is crumbling under the slightest strain. The stable health of village worker is better than the volatile health of the civilised man,

COLOSSAL IGNORANCE AND PRIDE

Even after the recent advances of science, our ignorance of the secrets of nature is colossal. Many medical practitioners do not seem

to realise the vastness of their ignorance. Instead of feeling humiliated by his utter powerlessness in many situations in his daily life, the proud young doctor is full of egoism (Ahankaara) due to the materialistic mentality. I see that during recent years in Madras, doctors of modern medicine rank first among those who die at a very early age of such preventable degenerative diseases as diabetes, high blood pressure, and heart failure. This does not speak very well of their medical training. Over-eating, sedentary habits, smoking and drinking, hurry and anxiety in their daily routine of life and faulty sex-life, which lead to these diseases, may be easily avoided by proper discipline and self-control.

I have great respect for the truly scientific research worker, untouched by commercial interests. But, I shudder to think, that a third rate practice of modern medicine spreads into the villages of India, to replace the ennobling ideals of Aayurveda by materialistic and outlandish ideas, quite unsuitable to our country. It is the spirit of Aayurveda that has saved the Indian civilisation.

UTILITY OF AAYURVEDA IS THE CLAIM FOR PATRONAGE

The chief claim for patronage of Aayurveda is its utility. In spite of the fact that some of the theories of Aayurveda are not so far accepted by modern science, the successful practice of Aayurvedic physicians has continued through the centuries, and more than 80 per cent of the people of India seek its help today. The people almost always resort to some well known indigenous drugs available in the locality, before they seek the advice of a physician. Clinical experience is after all the best test of the efficiency of the treatment. This proves, not only that the system of Aayurveda is alive in the mind of the people, but also that it is resorted to the moment the need for treatment arises. Aayurveda may therefore be said to be deeply rooted in the soil of India, and to have contributed largely to her cultural heritage.

OBJECTS OF THE STUDY OF AAYURVEDA

Charaka says that when the question arose as to which is the foremost among diverse means that exist for prolonging life,

(Praanavardhanaanaam), the proper reply according to Aayurveda should be Ahimsa—non-violence—and not food. Which is the foremost amongst diverse means that exist for enhancing strength. the reply should be enthusiasm and not bodily strength. Which is foremost amongst diverse means that promote nutrition and build of the body, the reply should be leading and not meat. Which is foremost amongst diverse means that contribute to satisfaction (Nandanaanaam), the reply should be control of senses and not sensual enjoyment. Which is foremost amongst diverse means that contribute to delight, the reply should be self-realisation (Aatma Jnaanam) and not aphrodisiacs. Which is the foremost amongst diverse means that guide to achieve the four human aspirations, the reply should be Brahmacharya (i. e.,) to live in God and not celibacy.

This is the view of the professors of Aayurveda (Iti Aayurvedavidya Manyante).
—(Charaka Sootra)

Although Aayurveda recognises the worldly or material happiness, in its different aspects as mentioned above, as the next best, the science of Aayurveda has a higher purpose, which is really of supreme importance. For example, food may promote life for the time being but Ahimsa serves promotion of life best in the long run and similarly the other items.

*Ahimsaa Praaninaam Praana
Vardhanaanaam Utkrista Tamam*
—(Charaka Sootra 30—14)

RESEARCH IN AAYURVEDA

We should conduct research in Aayurveda in order to make it the best system of treatment in the world. As the word Aayurveda implies, it is the science of life. It has no limitations of race, climate or country; its door is open to all true knowledge from any source. The application of modern methods of pharmacological technique conducted in collaboration with experienced Aayurvedic scholars is sure to result in the advancement of both Aayurveda and modern medicine. Literary, pharmacological, biochemical, clinical, psychological and philosophical research should all be conducted side by side.

The methods of research in Aayurveda should not be to imitate what is followed in other countries. The research should be based upon the fundamentals assumed by Aayurveda. Aayurveda has a good working hypothesis, which has helped the successful practice of Aayurveda through the centuries and it is still a living force today with the Aayurvedic physician and the patient.

Herein, I have laid emphasis on the following four points which are fundamental to the study of Aayurveda in separate institutions established wholly for its promotion.

(1) Aayurveda is superior to modern medicine in some respects and can incorporate all the advances of modern science, but modern science cannot adopt all that Aayurveda teaches, unless it accepts the existence of the soul in man as the director of the several processes of life.

(2) Man is not to be treated as a machine. The factor of personality and the emotional states are largely responsible for the happiness or misery of the individual and to a certain extent for the advent and cure of disease.

(3) Modern medicine should not be extended to the villages as such, unless it is integrated with Aayurveda by adopting its basic principles, of self-control particularly to prevent disease.

(4) Research in Aayurveda should be conducted by adequate personnel of the right type, proficient in Aayurveda, with the co-operation of modern scientists.

THE SCOPE OF AAYURVEDA

Culture without comfort, beauty without luxury, machines without enslaving factories, concept of sacrifice through work (Yagna), science without worship of matter and self-discipline through self-control and prayer would develop in man his physical strength, vitality, his moral sense, his intelligence, and his freedom from bondage and would lead him to the summit of his development. He becomes steady in mind—Sthitaprajna, Brahma Bhoota—one with God—the ambition of all education in Aayurveda.

The scope of Aayurveda is very vast and endless (Ananta-paaram).

CHRONOLOGICAL TABLE OF AYURVEDA

King Pridhu	...	4896 B.C.
Vedas	...	4000 B.C.
Daksha	...	3889 B.C.
Viswamitra	...	3814 B.C.
Ikwaku	...	3798 B.C.
Maandhaata	...	3488 B.C.
Dushyanta	...	3405 B.C.
Harischandra	...	3169 B.C.
Sagara	...	2951 B.C.
Bhageeradha	...	2833 B.C.
Bharadhwaja	}	2500 B.C.
Atreya		
Agnivesa		
Bhela		
Jatookarna		
Paraasara		
Haareeta		
Kshaarapaani	}	2225 B.C.
Raghu		
Viswaamitra		
Dasaradha	}	2158 B.C.
Dhanvanthari		
Susruta		
Bhoja	}	2150 B.C.
Bhaaluka		
Karaveerya		
Vaitarani		
Aupadhenava etc.		
Raama	...	2124 B.C.
Sri Krishna	...	1456 B.C.
Mahaabaarata War	}	1416 B.C.
Paandavas and		
Kouravas		
Buddha—Nirvana		554 B.C.

Bimbisaara	}	550 B.C.
Jeevaka		
Bikshu Atreya	}	300—200 B.C.
Paanini		
Naagaarjuna	}	100 A.D.
Asoka		
Charaka	}	400 to 500 A.D.
Bower		
Manuscripts	}	800 A.D.
Dridhabala		
Vriddha Vaagbhata	}	800 A.D.
Ashtaanga Sangraha		
Maadhavakara	}	700 A.D.
Vaagbhata—		
Ashtaanga Hridaya	}	900 A.D.
Vrindka		
Chakrapaani	}	900 to 1000 A.D.
Dalhana		
Malakaapuram Edict	}	1000 to 1100 A.D.
Arunadatta		
Vijayarakshitas	}	1000 to 1100 A.D.
Sreekantha		
Saarangadhara	}	1000 to 1100 A.D.
Akkalapudi Edict		
Chikitsaa Saaram by	}	1200 to 1300 A.D.
Gopal Dass		
American Discovered	}	1350—1400 A.D.
Kalavacheru Edict		
Vascodigama came to India	}	1368 A.D.
Vangaseva		
Sivadoss	}	1350—1500 A.D.
Krishnadevaraaya		
Bhaava Misra	}	1402 A.D.
	}	1423 A.D.
	}	1498 A.D.
	}	1500 A.D.
	}	1510 to 1530 A.D.
	}	1550 A.D.

Indrakanta Vallabhendrudu	...	1500 to 1600 A.D.
(Chintaamani)		
Basavaraaja	...	1600 to 1700 A.D.
Sarabharaaja	...	1700 to 1800 A.D.

Pandit D. Gopalacharlu—1872—1920.
 Foundation of Ayurvedic College, Madras—1901.
 All-India Ayurveda Mahamandal—1907.
 All-India Ayurveda Vidyapeetha—1912.
 Andhra Vaidya Mandali—1917.
 Oosman Committee Report, Madras—1923.
 Government School of Indian Medicine, Madras—6—1—1925.
 Arogya yaatra First Started 3—3—1938
 Text-Book of Ayurveda—(Ayurveda Siksha)—1944,
 Government College of Indian Medicine, Madras—1947.
 Village Vaidya Training Scheme, Madras—1947.
 Chopra Committee—New Delhi—Report—1948.
 Birth of the Andhra State—1—10—1953.
 Expert Committee for Popularisation of Ayurveda constituted—
 30—6—1954.
 Andhra Ayurveda Board Inaugurated—20—9—1957.
 Arogya yaatra in Dendulur Firka—10—1—1958.

A. LAKSHMI PATHI

CHAPTER IV

FAITH TREATMENT IN AAYURVEDA (DAIVAVYAPAASRAYA CHIKITSA)

RELIGION AND ITS INFLUENCE IN HEALTH & DISEASE

Religion is based upon the belief in the existence of a super-human Almighty power which directs all the activities of the universe. Some consider it as Nirguna (qualityless) and can be realised only by true knowledge (Jnaana Yoga) Others attribute to the Almighty all the good qualities (Saguna) and worship Him as God, who is all merciful and who bestows his Grace on the devotees. All religions of the world are the several paths (Panthaas) which help man to reach the same goal—namely salvation or liberation—Moksha—of the soul from the bondage of action. (See Philosophical Background.)

“Ekam Sat Viprah Bahudhaa Vadanti.”
(Rig Veda)

“Truth is one, Wise men describe it in several ways.”

Religious beliefs have a great influence in the maintenance of health and in the cure of disease. I have given below some facts which demonstrate how religious beliefs may affect a man's health and happiness.

The value of faith treatment cannot be ignored whether modern science accepts it or not. Personally, I feel convinced that during

the last 10 or 15 years. that the patients, who come to me with absolute faith in my treatment get cured or relieved in surprisingly short time, while those who undergo the same treatment at my hands without absolute faith, by running from one doctor to another, take a long time to derive the benefit of the treatment, I sometimes feel that it is the faith that helped to cure them and not so much the medicines,

The renowned scientist Alexis Carrel, says that he saw with his own eyes, to his great astonishment that a case of tubercular peritonitis with distended abdomen suffering from severe pain and distress for several years was miraculously cured by the pilgrimage to Lourdes in Spain, where the treatment was merely by faith. The report of the case is as follows.

Name:—Marie Ferrand—Age 19.

Past History:—Marie Ferrand's parents had died of similar maladies that Marie herself had been ill all her life. At 17, she had a dry cough and spat blood; at 18 she had a pleurisy, and fluid had been taken from the left lung. Although she had improved after that, she had never actually recovered, and eight months ago, when she entered the hospital, her abdomen began to swell, she ran a fever and the doctor diagnosed it as tuberculous peritonitis. A few days before the pilgrimage, an operation had been considered but the chief surgeon had felt her condition too precarious and her family was told that her case was hopeless. She had been so determined to make the journey to Lourdes, that consent had finally been given.

Physical Examination:—The glistening skin was stretched tight and at the sides the ribs protruded sharply. The swelling was apparently caused by solid masses and there was a pocket of fluid under the umbilicus; it was a classical case of Tuberculous Peritonitis. The legs were swollen too. The temperature was above normal and the heart beat and the breathing were accelerated.

At Lourdes, a place of pilgrimage in the foot hills of the Pyrenees in Spain, the patient's condition was described as follows.

Her head, with its white, emaciated face, was flung back on the pillow. Her wasted arms lay flat on her sides. Her breathing was rapid and shallow.

Her pulse was excessively rapid and irregular. Her heart was giving out.

Her abdomen was distended as before. The solid masses were still there at the centre, under the umbilicus, The fluid could be felt.

DIAGNOSIS AND PROGNOSIS

"An advanced case of Tuberculous Peritonitis. She may live for a few days more but she is doomed. Death is very near."

As she was unfit to the bath, she was carried in a stretcher and they poured some of the water on her abdomen. The priest lifted her arms and held them like a cross and cried out, "Holy Virgin, heal our sick" etc. After a few minutes after the prayer it seemed that there had been a change, that the harsh shadows on her face had disappeared, that her skin was somehow less ashen.

In half an hour's time. Alexis Carrel saw with his own eyes that a functional improvement was distinctly seen which was in itself a miracle.

The dying girl was recovering.

In 3 hours, the patient was sitting up in bed and said, "Doctor I am completely cured—I feel very weak, but I think, I could even walk."

Pulse became calm and regular. Her respiration had also become completely normal.

It seemed to be a new fact, "an astounding unacceptable event—a miracle. The skin over abdomen was smooth and white. There was no trace of the distention and of the hard masses that were found there before.

"They had vanished like a bad dream."

Doctors who examined her said she was cured.

"Her respiration is normal. She is well. She can get up."

Alexis Carrel says,

"Perhaps science and religion, each have a system of its own." In the face of life and death, mere theories are void. It is not science that nourished the inner-life of man; it was the Faith of the soul."—Readers Digest. September 1950.

The scientists are in search for the soul which is beyond the perception of the five senses.

OTHER INSTANCES OF TREATMENT BY FAITH

My wife Mrs. Rukmini Lakshmipathi was suffering from some months in the year 1951 from myocordial degeneration and consequent dropsy and other symptoms. She was occasionally having pain in the chest and sleeplessness more particularly at night. She did not like to take hypnotics. Her two remedies for pain and respiratory distress were hot water bottle and prayer. She had a great love for music, being an expert Veena player herself. The radio used to give her great comfort when music was available (i. e.) upto 10-30 in the night.

After that, whenever there was any suffering, she used to sing melodiously in praise of Lord Krishna, He favourite song was

*Kastoori Tilakam Lalaata Phalake
Vakshastale Koushtubhum' etc.*

—from "Sri Krishna Karnaamrutam"

Even the neighbours would be listening to her singing the song most beautifully at midnight in the silent hours. This would make her forget all pain and would put her to sleep. But, one should have faith in the effect of prayer for the prayer to act beneficially. For one, who has no faith in the benefit of prayer, it will have no action.

On 11 th July 1954, I had occasion to go to Nellore on my way to Bezwada Sri Ayurveda Bushana Y Srinivasachariar, the Physician-in-charge of the Children's Hospital there, produced before me 2 ladies who were sisters belonging to a respectable family.

The elder sister had faith in the cure for scorpion sting by Manthram and the younger sister had no faith, Both of them were stung by scorpions several times. While the elder sister was invariably cured by Manthram, the younger sister suffered very badly inspite of the Manthram being administered to her by the same Vakil reputed for his powers of curing scorpion bite. Here,

two points arise. One is the individual personality factor and the other is the factor of faith. Faith cures only one who has belief in it, but not the unbeliever.

On 23rd July 1954, when I was camping at Bezwada for the enquiry of the Ayurvedic Committee, I had occasion to interview three Ayurveda Vaidyas (1) S. S. S. Ramakrishna Sarma Garu of Guntur, (2) Guntur Raju Garu of Bezwada and (2) Guduru Namssivaaya Garu of Bezwada, who treat patients suffering from scorpion sting by Mantram. All the three of them say that a very large majority of people treated by them are completely cured in about ten minutes. The Mantrams in each case are different. One repeats a number of times in his own mind. 'Om Neppalli Sadaa-sivuni Duraayi', which means the order of God residing in the temple in the village of Neppalli. The Mantra begins with 'Om' which is considered very important. His father initiated him in the Mantra. He takes a piece of white cloth and ties seven knots in it and ties the cloth on the arm or leg of the side opposite to that of the scorpion bite.

Another Vaidya repeats, 'Om Hraam, Hreem, Hroom, Hrem, Hraim, Hrah'. These Mantras must be repeated by the Vaidya a number of times and as he repeats the Mantras in his mind, he passes his hand from the painful area downwards either from the shoulder to the fingers or from the hips to the toes, two or three times in long sweeps over the patient's body but the Vaidya does not touch the patient's body. As his hands move downwards, the pain gets less and less and disappears in a few minutes. All the time the Vaidya concentrates his eyesight into the eyes of the patient whom he asks to look at him. In the case of women patients, he holds a stick in his hand and he concentrates his eyesight on the top of the stick and asks the patient to concentrate her eyesight on the same point. He never looks into the eyes of the women patients. In all cases of treatment by Mantras, purity of heart and benevolence of spirit are essential. The Vaidyas do not accept remuneration of any kind for this treatment and they are ordained by the Guru to perform the service, to all people, at all times of the day and night without shirking it in the least.

The third Vaidya repeated his Mantra in English as his Guru initiated him in the Mantra only in English. The Mantra contains

three syllables which convey no meaning but he repeats that Mantra three or four times. That Mantra also contains 'Om'.

We cannot doubt that a large number of patients are cured in a surprisingly short time. The re-action takes place in the life processes of the patient by the influence of the thought processes of the Vaidya. Modern science has no method of examining these phenomena.

Charaka in the chapter on the treatment of fevers prescribes the repetition of Vishnu Sahasranaama (1,000 names of God Vishnu) as a treatment. This is for those who have faith in it.

*Vishnum Sahasra Moordhaanam
Charaa Achaara Patim Vibhum
Stuternaama Sahasrena
Jwaraan Sarwaan Apohati.*

—(Chikitsa 3—312)

By chanting in his praise, the thousand names of Vishnu, who is possessed of thousand heads—that means omnipresent), who is the Lord of all creatures, mobile and immobile, and who is endowed with omnipotence, all kinds of fever will be alleviated.

Non-believers should be converted into believers before Aayurveda is taught to them.

Buddhimaan Naastikyam Jahyaat.

—(Charaka 11)

THE RATIONALE OF FAITH TREATMENT

The mind which is the controller of pain is one pointed (Anu). Therefore, when the mind is concentrated on God or is completely directed (Para Dhyana) on any other subject, no pain will be felt. The explains to some extent the rationale of the faith treatment.

Treatment generally consists in relieving suffering and curing diseases:—

In the matter of relieving suffering, I am of opinion that great injustice is done today to the patient by the administration of hypnotics, such as morphia, bromide and the

modern synthetic products like luminol etc., deliberately or even unwillingly by the medical practitioners both in private practice and in hospitals. This is done more to help the nurse and the relatives of the patient, so that they may have some rest even at the risk of ultimate injury to the patient. I say that this is criminal. The doctors are selling their conscience, prompted by the alluring advertisements of the manufacturers, who trade in the name of science. After 30 years of experience, I have learnt that pain is an effort of nature to cure the disease. It is a sign-post for the doctor to guide him to enquire and know the cause. The cause is to be removed, if it is possible. But, if it is not possible, it is not right that any hindrances should be put in the way of nature to cure the disease. With a little effort, if the doctor tries, he will find a way to relieve pain, without at the same time hindering the curative processes of nature. For instance, fomentations at regular intervals, hot and cold baths, fasting purgatives, enemata, emetics, blood letting and leaches have their own utility. There are many other modern methods like deep X-ray, if the doctor is determined to search for them instead of resorting to hypnotics.

Above all, there is suggestion or hypnotism. A strong suggestion from the doctor has sometimes an immediate effect in relieving pain. What is pain?

Charaka says, "The seat of pain and in fact of all knowledge (Vedana) is in the mind, which is in contact with the Indriyas (senses) and the body on one side and with the soul on the other. The parts of the body, such as the hair, the tips of the nails etc., to which the senses do not extend have no pain because they have no feeling".

*"Vedanaanaam Adhishtaanaam
Mano Dehascha Sendriyah
Kesa Loma Nekhaagraanna
Mala Drava Gunairvina."*

DEFINITION OF DAIVAVYAPAASRAYA TREATMENT

This treatment depends upon the study of the heredity and other unknown factors. The English word "psychic treatment", which means treatment of the mind, is not at all a suitable transmis-

sion of the term Daivavyapaasraya treatment. The word "Daiva" means "relating to divinity". It also means destiny, fate or fortune that which is not known—Adrishta. The term Daivavyapaasraya relates to all the unknown circumstances, (i. e.) those which cannot be reasoned out and explained by the existing human knowledge. Daiva also relates to all that which is acquired before birth by the descent (inheritance of man) in the long course of natural evolution. "As you sow, so you reap". The hereditary tendencies that are due to his family inheritance, Jaati (class or caste in which he is born), Kula (lineage) such as professional or family descent, Desa—geographical descent, or Kaala, or Yuga, the age in which one is born, have all of them their own influence on the health and strength of the individual, which may not be known to us. It is they that are responsible for the good or bad qualities inherently possessed by any individual. The heredity of each individual is to a certain extent responsible for the individual being liable to disease or to his resistance to disease. All actions performed by him or his parents are included in Daivavyapaasraya, because he alone is responsible for all these actions, whether they were done with his body or with the past bodies.

*Daivam Aatmakritam Vidyaat
Karma Yat Pourva Daihikam*

Charaka Vimana III (36)

Thus, Daivam includes all those unseen circumstances which relate to the individual called Karma Purushah.

The following treatment in the shape of good deeds is recommended for diseases caused by Daiva.—Charaka Sootra (XI—62)

1. Mantra :- The use of sacred hymns or words having spiritual potency.

2. Aushadhi :- Contact with or mere touch of some potent herbs worn has amulets. Here, internal medication of the herbs is not what is indicated.

"Aushadheeh Prasastaah Dhaarayet"

Charaka Sootra (VIII—18)

3. Mani :- The touch of precious stones and gems—the influence of actinic ways of radio-active substances is probably indicated here. The action is called Prabhaava of the gems.

4. Mangala :- Benediction or the influences of auspicious ceremonies invoking the blessings and good wishes of others.

5. Bali :- Practise of self-denial and sacrifice.

6. Upachaara :- Feeding of lower animals, poor-feeding etc., as a symbol of mercy and comradeship with the helpless and the distressed.

7. Homa :- Sacrifice of ghee and fragrant disinfecting substances accompanied by auspicious prayers. Fire is considered as a visible symbol of God. So also the sun.

8. Niyama :- Practice of healthy habits and religious observances conducive to cleanliness and self-control and discipline.

9. Praayaschitta :- Atonement for evil deeds committed in the past either knowingly or unknowingly.

10. Upavaasa :- Fasting as a means of self-purification of the mind and the body.

11. Swastyayana :- Benediction after presentation of offerings.

12. Pranipata :- Falling prostrate on the ground as a symbol of humility and self-surrender.

13. Yatraagamana :- Visiting sacred places of pilgrimage in order to divert the attention of the patient towards pious thinking and also to promote the influence of the change of climate, change of scenery and to derive the benefit of physical exercise. In fact, all places of pilgrimage in India are really health resorts with their beautiful scenery and pure water from springs or rivers for bathing and drinking. Now, of course, they have degenerated on account of neglect due to want of State patronage and to the glamour of Western fashion.

The above methods of Daivavyapaasraya treatment are most beneficial in the case of those who believe in God and who have faith in those methods of cure. Even, today there are numerous people, of all religious faiths in India, who resort to these methods and are greatly benefited by it. This treatment gives Saanti—peace—to the agitated mind. It sometimes effects miraculous cures not only in mental diseases such as hysteria and insanity, but also in some purely bodily diseases. All pain and suffering disappears by

diverting the mind of the patient. It is no wonder that intense Bhakti (faith) creates a new and powerful vitality, which can cure even a virulent organic disease such as leprosy, diabetes and consumption. See Charaka and Susruta in the treatment of different diseases. The rituals and the Mantras (sacred hymns) and the time of applications differ for different diseases and thus, the science which deals with this method of treatment called the Mantra Saastra, has developed into a special science and an art practised by specialists in that branch. Aayurvedic texts give frequent references to these methods of treatment. For example—Refer to Charaka Chikitsa VIII 181—183, Vimana III—18, Vaagbhata Chikitsa XIX—98, Susruta Chikitsa XI—12 and so on.

Modern medical students have to take up this subject for special research. Many text books are available on Mantra Saastra in Sanskrit which I had not the capacity nor the opportunity to study.

When the Aavesa (deep and devoted absorption of the mind) generated by the Bhakti (faith) is enough to prevent the blazing fire from burning the human skin, what can it not do? The same faith may alter the structure and functions of muscles, tissues, cells, and secretions in the human body and may relieve any pain and also cure any disease in a way that modern science cannot explain at present. The Mantras may transmit the healing powers through distance, through the waves of ether or other unknown media. The radio and the research connected with the atom bomb may bring together the East, following the spiritual path, and the West, following the material path. True science is not a rival of Aayurveda but a friend by making Aayurveda more easily explained and better understood.

The spiritual sciences are only intended to be taught to those who believe in them. Bhagavad Geeta emphatically says that this supremely secret science should be taught only to the devotees.

“Ya Idam Paramam Guhyam

Mad Bhakteshu Abhidhaasyati

—Geeta XVIII 68

Never is this to be spoken by thee to anyone, who is without the spirit of sacrifice, nor to anyone who desireth not to listen, nor yet to him who speaketh ill of God—Geeta XVIII 67.

The science of Aayurveda which deals with this subject is also not intended for atheists and agnosts.

Tatra Buddhimaan Nastikya Buddhim

Jahyaat, Vichikitsaam Cha.

Charaka Sootra XI—18.

A wise man should once for all banish atheistic attitude or any doubts regarding the existence of God, if he wishes to be benefited by Daivavyapaasraya treatment.

ALL PAIN DISAPPEARS IN YOGA

All feeling and all pain will disappear in Yoga and Moksha. Yoga is the forerunner of Moksha. In Yoga, pain disappears temporarily and in Moksha, it disappears completely and permanently.

Yoge Mokshe Cha Sarvaasaam

Vedanaanaam Avartanam

Mokshe Nivrittih Nisseshah;

Yogo Moksha Pravartakah.

The feeling of happiness and misery are due to the contact between Aatma on the one side, mind, senses and the external objects on the other.

Aatmendriya Manordhaanam

Sannikarshaat Pravartate, Sukham Duhkham.

If this contact is broken by diverting the mind of the patient by suggestion i.e., utilising the soul force of the doctor, pain is relieved, sometimes temporarily and at other times even permanently. I have tried it myself in many cases. They forget pain in my presence. I have also induced sleep by suggestion but it may mean some effort on my part in certain instances. In many others, it means no effort at all. In some cases, the patient may be trained with some practice to take the mind away from the seat of pain and

the mind when withdrawn from the senses is no more in contact with the brain and then the pain is reduced or altogether relieved. This is the method of Yoga—concentration and meditation. This is called “Saatwaavajaya—Ahithebhya Ardhebhya Mano Nigraha”—controlling the mind from unsuitable objects.

Non-physical causes such as emotions are responsible in certain cases for gastritis, appendicitis and paralysis. Certain physical diseases where even organic changes are found in different organs are cured by non-physical treatment. Treatment by appropriate music, presence of friends and pleasing association mentioned under the treatment of consumption in Charaka come under this head.

INFLUENCE OF THE MIND IN CURING DISEASE

A girl wanted to marry a Rajah (V) of the same Gotra and was prohibited by her parents. The marriage was not legal and was punishable according to law. She developed all sorts of troubles in the stomach and lungs, so that, the case was variously diagnosed as gastric ulcer and tuberculosis of lungs, because she was vomiting blood persistently and there was also continual loss of weight attended with fever and cough. She was absolutely bed ridden and was nearly collapsing. When I was consulted, I was able to find out the real cause of the disease, from the family history. I had the marriage performed against the opposition of the parents on my own responsibility. The result was that the patient improved with marvellous rapidity. All the symptoms began to disappear from the time the assurance of marriage was given. The weight of the patient which was only about 80 lbs increased to 135 lbs in a few months. She now has a healthy girl child. This is a case of the mind helping to cure an active organic disease in which destructive changes in the organs had already set in. The disease retraced its steps and instead of the wastage of the tissues (katabolic changes) there was overgrowth of the tissues (anabolic changes). These became very conspicuous in this case. I can quote a good number of such instances. This is also not a case of treatment by Yogic methods, it is only an illustration to show that the influence of the mind can restore even damaged organs to health.

When the mind is fixed steadfastly in the Aatma (Samaadhi state) certain super-human powers are developed

The super-human powers are acquired by a Yogi by eschewing Rajas and Tamas and by cultivating pure Satwa in the Samaadhi state. See Charaka Saareera(1-40.) When once these powers are acquired curing the diseases becomes a very small matter.

HATHA YOGA IN THE TREATMENT OF DISEASES

The treatment by Yoga is of two kinds:—

(1) One is by Raja Yoga. This involves the use of the higher mind. It is called Chittakala, the mental art. Only high class intellectuals can aspire to success in the art.

(2) The other is by Hatha Yoga. Called Praanakala, it involves mostly use of the lower mind and lower vital centres of the Praanamayakosa. Even a man with low mental capacities may succeed in this.

There is no doubt of the extraordinary powers exhibited by the Hatha Yogi, which are now known all over the world. A Yogi can remain underground in an artificial cell hermetically sealed against the entrance of air for a long time. This is not merely a passive condition of the mind like sleep or hibernation. It is said that Pragnya (super-consciousness) is developed in the Samaadhi state. Extraordinary powers are obtained by the Yogi during this process. He may use these powers for the good of humanity. For example, (1) if a painless condition can be induced in certain diseases like cancer for days and months by this process, other methods may be found by which the disease may be made to retrace its steps, by bringing into existence the opposite factors to those which were responsible for the origin of the disease. Powers like that of the deep X-Ray may possibly be developed from the human soul-force by research in this line. By the practice of Vajroli, a practitioner may wash his bladder or rectum automatically with a certain amount of practice. Similarly Yogic powers may be utilised if introduced in the medical line for treatment of certain diseases in the pelvis. Even now the power of controlling voluntarily the muscles of the abdomen and the movements of the intestines automatically (Nauli) is used in some institutions for

the treatment of constipation and some abdominal diseases. This may be extended to other medical purposes.

All this is now done by some practitioners here and there, but the whole science has to be systematised on a scientific basis and taught in universities by establishing separate faculties for research in these mental sciences as they are now attempting to do in some universities in America,

No further evidence is required to prove that the science of Aayurveda is very intimately related to science of Yoga, both from the standpoint of preservation of normal health and the treatment of disease.

Verily, the power of resistance to disease is in the soul-force—Aatma Sakti—that is possessed by every living organism. This is a special property of Ayuh—life itself. Ayuh is described as Chetanaa Vrutti—that, which is responsible for the continued living existence of the organism. The understanding of the minute detail of the degrees of spiritual power—Aatma Sakti—possessed by each organism will give a clue to the power of resistance to the disease or disintegration possessed by the living organism. All this is included in Aayurveda, which states that Prajnaa (right knowledge) prevents disease and promotes health. Conversely Prajnaaparaadha (faulty judgment) leads to disease.

A unit of spiritual energy—Aatma Sakti—may be converted into a thousand units of mental energy and tens of thousands of units of material energy, just as gold of the weight of a sovereign may be exchanged for about 10,000 pies of copper. Whereas, in the ordinary currency, there may be a rate of exchange, in the case of conversion of the spiritual energy into the material energy, this depends entirely on the powers of the individual Yogi.

India is specially qualified by virtue of her tradition to conduct research in the development of the spiritual energy and its conversion into the power of healing diseases for the benefit of humanity. This line of research in spiritual energy may help us to utilise even the material atomic energy for the conquest of disease and the maintenance of the full span of a peaceful, happy and useful life.

Aayurveda is thus, the whole science of Ayuh, The science that deals with all the factors relating to life.

Aayurveda is Nityam—eternal—and Anantapaaram—endless.

STATEMENTS ON TREATMENT BY MANTRAS

The following statements were recorded by Dr. A. Lakshmi-pathi in his capacity as the Chairman of the Expert Committee for the Popularisation of the Aayurvedic System of Medicine in Andhra State, in July, 1954,

I. Statement made by Sri Guntur Raju Garu, age 60, living at Kothapet, Vijayawada :

Every morning as soon as I get up I take a bath and perform Japam and Surya worship and Gaayitri.

I treat patients stung by scorpion bites. It is always free service at any time during the day and night.

I give no medicine for it, I perform Japam at that moment. It is a secret. I learnt it from a Guru (i. e.) Ravoori Seshagiri Rao Pantulu Garu, Bezwada. He was my Telugu teacher. He gave it to me in my 11th year. I have not revealed it to anyone, but I am revealing it to you for the benefit of science. It consists of only a few words. I concentrate my mind in the eyes of the patient and say, "Om Sri Sooryanaaraayanaaya namah. Om, Hraam, Hreem, Hroom Hraim, Hraoum, Hrahaah."

Then I pass my hands from the painful area downwards either from the shoulder to the finger or from the hip to the toes 2 or 3 times.

As my hands move downwards, the pain gets less and disappears in a few minutes and at the latest in 5 or 6 minutes. They go home relieved and they have to bathe in cold or hot water as soon as they go home.

In the case of females, I ask them to look at the head a walking stick. I do not look at their face.

My idea is that all who come to me are cured. I have not heard of any failure.

I treat cases of head-ache with the same Mantram and hysteria and other diseases with other Mantrams.

II. Statement made by Sri S. S. S. Rama Krishna Sarma of Guntur :

My name is Somanchi Siva Sankara Ramakrishna Sarma Agraharam, Guntur, age 34 years. I am a Vaidya.

I have been treating cases of scorpion bite for the last 4 years. Almost all cases are cured. More than 50 per cent are sure to be cured in my presence within 10 minutes.

"Om Neppalli Sadasivuni Duraayi". My father initiated me in this Mantra in 1940. I do not know the origin of this Mantra.

I perform the usual Sandhya prayers and Gaayitri daily. I have faith in the powers of God.

I take a piece of white cloth and tie seven knots in it and tie it on the arm or leg of the side opposite to that of the scorpion bite.

I do the same Mantra for all the poisonous insect bites. I have not yet attempted for snake bite.

III, Statement made by Sri Vaidyaraj Guduri Namassivaya :

A school of Yoga called Bhrukta Rahita Taaraka Raja Yoga Mandali was started in the year 1910.

Its founder is Sri C. V. Venkasami Rao Garu of Kumbakonam

There is a course of 64 breathing principles. There are practised by people suffering from diseases.

There is a Mantra to cure those who suffer from scorpion bite. ("Salutation to Master C V. V.") This should be repeated 3 times. The Vaidya should sit with closed eyes and repeat in his mind the Mantra which consists of the following words which have no meaning. The Mantra is 'D' Artery blood. He should contemplate in his mind that the patient should be cured. The Vaidya should then ask the patient to briskly shake his hand or leg. In this manner, the contemplation and shaking should be done three times. The patient would be relieved of his pain.

I have been practising this treatment for the last 20 years. Many people get cured completely. The cures may be 95 per cent.

CHAPTER V

HISTORY OF ĀYURVEDA

INTRODUCTION

Being as old as the Vedas, the history of Āyurveda takes us back to the remotest antiquity. It is a science as well as an art original in itself and based upon the practical experience and careful methods of investigation pursued by the great sages of the bygone times, who were endowed with intuition. The knowledge in the science of Āyurveda cannot be complete and entire without a knowledge of its history. The founders and builders of this great system of medicine were so humble and selfless in their endeavours as not to mention anything about themselves in their compendiums, a feature which is characteristic with all the ancient Hindu sages. The times in which these great benefactors of mankind flourished and wrote their *Samhitas* are lost to us in dim obscurity and little or nothing is known about the incidents of their lives except that their names have been quoted here and there by commentators of later times. We propose to present a bird's eye view of the historical domain of Āyurveda commencing from the earliest times down to the present day. In this connection the honoured names of C. Muthu may gratefully be remembered.

The History of Āyurveda may conveniently be described in following periods of Yugas viz.

1. Vaidika Yuga, 2. Samhita Yuga, 3. Bauddha Yuga,
4. Paurāṇika Yuga, 5. Mahammadeeya Yuga and 6. Aangala Yuga.

VAIDIKA YUGA

This period extends from the pre-historic times up to 2500 B C. Hindu scriptures are generally classified into two classes, viz. *Srutis and Smritis*. Literally, by *Sruti* is meant what has been heard. It is believed to have been heard as revelation from Brahma and the Rishis thus inspired have left a record of those truths for our benefit. The Rishis are therefore called seers or sages. These records are called the Vedas. These stand primary in point of authority while *Smritis* are secondary which simplify amplify the principles laid down in the former (Vedas). The Vedas are four in number viz, the Rig Veda. 2. the Yajur Veda. 3. the Saama Veda and 4. Atharva Veda, of which the Rig Veda is the earliest and Atharva Veda the latest, These are considered to be the oldest books in the library of man. As nobody knows when and by whom they were compiled, they are considered as *Apaurusheya* (not man made.)

AAYURVEDA AN UPA-VEDA

Though Aayurveda has been described as the essence of all the Vedas in Puranaas (Brahma Vaivart) and as a fifth Veda by Sage Kasyapa, it is also traditionally believed that it is an Upa-Veda. It is thus as authoritative as the Vedas. Every Veda has an Upa-Veda of its own, Aayurveda beng the Upa-Veda of Rig-Veda, archery of Yajur Veda, the science of music of Saama Veda and the science of surgery of Atharva Veda.

*"Sarveshaameva Vedaanaam upavedaa bhavanti,
Rigvedasyaayurveda upavedah,
Yajurvedasya Dhanurveda upavedah,
Saamavedasya, Gaandharvaveda upavedah,
Atharvavedasya, Sastrasastraani"* Charana Vyaha.

Aayurveda is regarded as the Upaveda of Atharva Veda also. "Ha Kshetu Aayurvedonaama Yadupaangamatharvavedasya", (Sus-Soo, Chap I) Charaka also considers Atharva as the basis of Aayurveda. (See chap 30).

Whether Aayurveda form a Sub-Veda or an auxiliary one to Rig Veda or to Atharvaveda, it matters little as the topics relating to it. (Aayurveda) are met with freely scattered here and there in varying measures in all the Vedas though none of the Vedaas contains the word Aayurveda throughout their vast bodies

AAYURVEDA IN THE VEDAS

Whatever may be the origin of the Vedas, whether they own their origin to divinity or to humanity, they occupy a unique position of their own and enlighten us upon the early habits and customs of the people and also of the medical science of our nation during the pre-Buddhistic times. In fact, of the Vedas, the Rig and the Atharva Vedas are the preponderating sources of the fundamental principles of Aayurveda lying scattered in the vast body of the Vedic literature. We will however, present the theories of Aayurveda and its principles of treatment culled from the different places of the Vedas to give an enraptured glimpse and insight into the antiquity of the science. One cannot but admire from these the insight of the ancient Rishis their keen and careful observation of nature and its elaborate application upon the health of man.

"In the Vedas, the medical knowledge is of the said to be derived from the actions of animals. In the Atharva Veda, we find certain animals acting as teachers of medicine. The boar, ichneumon serpents, eagles, falcons and birds, oxen, kine, goats, sheep and wild animals are mentioned as versed in the qualities of medicinal plants." (VIII 7-23-26-History of Indian Medicine. Vol. I. P. 72. G.N. M.).

REFERENCE TO TRIDHAATUS

A reference to the theory of Tridhaatus is met with in Rig Ved which runs as follows :

*"Trirno aswinaa divyaani bheshajaa trih Paardhivaani
trirudatta madbhyah.*

*Omaanam sam yormamakaaya soonave tridhaatu sarma
vahatam subhaspatee"*

Rig. Ve. 1-7-46

The equilibrium of the said three Dhatus means health or happiness, whereas their derangement constitutes disease or distress.

Saayanaachaarya, the famous commentator of the Vedas has interpreted the Tridhaatus as Vaata, Pitta and Sleekshma and stated that their equipoise is happiness (Sarma).

ANATOMICAL REFERENCES

Practical surgery requires a good knowledge of practical anatomy. There can be no doubt that the ancient Aryan Rishis possessed a good knowledge of anatomy of the different parts of the body. They were also acquainted with the anatomy of at least certain animals such as the goat and horse, that they often used at the sacrificial functions. This afforded excellent materials for a knowledge of comparative anatomy. They recognised the various organs of the body and gave different names to the different organs. Even in the earliest records as the Rig Veda, we come across with the names of certain internal organs as the heart, intestines etc. An investigation into the Aranyaka Brahmana of Yajurveda will give one the main traces of anatomy as mentioned in the surgical science (3-9-30). A few references to anatomical terms occurring in the Vedas are given below.

Vedic Name		Reference	
Antra	(Intestines)	Ath	2-33- 3
Bhanishtu	(Prostate gland)	Ath	10- 9-17
Dhamani	(Artery & also nerve)	Ath	1- 17-13
Gaveeni	(Ureters)	Ath	1- 3- 6
Gudaa	(Rectum)	Ath	10- 9- 1
Hridaya	(Heart)	Ath	2-29- 6
Kaphodau	(Lungs)	Ath	10- 2- 4
Kloman	(Tracheo bronchial tree & Pancreas)	Ath	10- 8-12
Kukshi	[Stomach and intestines]	Rig	3-36-8
Mastishka	[Brain]	Ath	10- 2- 8
Matasna, Vrikka	[Kidneys]	Ath	{ 10- 2- 4 9-12-13
Manya	[Neck]	Ath	"

Vedic Name		Reference	
Naadi	(Nerve & also artery)	Ath	10- 7-15
Pesani	(Muscle)	Ath	10- 2- 1
Pleehan	(Spleen)	Ath	2-33- 3
Pureetat	(Peri Cardium)	Ath	9-12-11
Snaava	(Sinews)	Ath	1-10-11
Hiraa	(Veins)	Ath	1-17- 3
Udara	(Stomach)	Rig	3-33- 8
Vasti	(Bladder)	Ath	2-33- 3
Vrishana	(Testes)	Ath	9-12-13
Yakrit	(Liver)	Ath	2-33- 3

The Atharva Veda in its tenth Kaanda contains a special hymn on the creation of Purusha in which several parts of the skeleton were enumerated from foot to head.

Paarsni (Heel), Gulpha (Ankle Bone), Anguli (Digit), Uchlakha (Long bones), Praatistha (Base), Asteevat or Jaanu (Knee cap), Janga (Leg bones), Sroni (Pelvic cavity), Uru (Thigh bone) Uras (Breast bone), Greeva (Wind pipe), Stana (Ribs), Kaphoda (Shoulder blade), Skandha (Neck-bone), Pristi (Backbone), Amsa (Collar bone), Lalaata (Brow), Kakaatika (Central facial bone), Kaapala (Cranium), Hanu (Jaw).

According to Satapatha Brahmana the number of bones in man is 360. "Shashtis Cha ha vai threeni Purushasya astheeni" (10-5-4-).

That the body is made up of the five Bhootas was conceived by the Aaryans as early as the Vedic period, a fact which is evident from the following hymn addressed to Agni thus:

"Let his eye go to the sun, his breath to the wind and to the sky and to earth according to nature of the several parts of the body" (Rig. 16. 3. 4. 5. 6. 7.)

THE PROCESS OF METABOLISM

In Chandogya Braahmana of Saama Veda (Shashta Prapaata), we find references to the process of digestion, assimilation and metabolism and even the nourishment of senses described in the form of a discourse between Swetaketu and his father.

*"Anna masisan thredhaa vidheeyatetasya
Yah sthavishto dhaatu stha pureesham bhavati
Yo madhyamasthan maamsayo nishta sthan manah"*

"The Anna (Paardhiva-solid food) that is eaten is divided into three parts. The gross part becomes the Pureesha (faeces) the middle part becomes Maamsa (flesh) and the subtle part becomes the Manas (Mind).

*"Aapah peeta nthredhaa vidheeyante taasaam
Yah sthavishto dhaatu sthan mootram bhavati
Yo madhyama stha lohitam yo nishta ssa praanah"*

The Aapah (liquid food) that is drunk is divided into three parts. The gross becomes Mootra (urine), the middle one becomes Lohita (blood) and the subtle one becomes Praana.

*"Tejositan tredhaa vidheeyate tasya yah
Sthavi hto dhaatus tadasthi bhavati yo
Madhyama ssa majja yo nishta saa vaak"*

The Tejobhoota food (consisting of ghee, oils etc.) is divided into three parts. The gross portion becomes Asthi (bone—note the presence of phosphorus in bone) the middle one becomes Majja (marrow) and the subtle portion becomes Vaak (speech)

Mind is constituted of Anna, Praana is constituted of Aap, and Vaak is constituted of Tejas.

When his father told Swetaketu in this manner and when Swetaketu doubted its truth, his father asked him not to take any solid food for fifteen days but only to drink water because Praana is nourished by water and that if he did not drink water, Praana will not survive. Swetaketu did accordingly and approached his father. His father asked him to repeat the Vedas that he was studying. Swetaketu replied that he could not repeat. The father said "Out of the sixteen Kalaas that make your mind, fifteen are exhausted. Just as a spark of fire cannot ignite a big log of wood, so also a small spark of life cannot illuminate and brighten the knowledge of the Vedas, so that you may remember them. Therefore

go and eat. Then you can repeat the Vedas." He did accordingly. Just as a spark of fire is enlarged by applying a few bits of straw to it so also the spark of life that is only one sixteenth portion in him is brightened by the solid food consumed by him.

Thus it is demonstrated that Manas is constituted of Anna (Pridhvi) Praana is constituted of Aap and Vaak is constituted of Tejas. Teja is Kaanti. It is Balam. Balam is Ojas. All these depend upon the strength derived from the assimilated food. (Cf.Ch.Soo.30)

This is also an example to illustrate that the more rarified an element is, the more powerful is its kinetic action and the more gross an element is, the less powerful is its action. Pridhvi contributes to the grosser part of the body—the seven Dhaatus. Aap and Tejas contribute respectively to the finer parts viz. Manas, Praana and Jnaana.

REFERENCES TO BACTERIOLOGY

We find in the Vedic Mantras that great stress has been laid on the harm done by Krimis or worms and microbes. These have been described as Drishta (visible) and Adrishta (invisible). They are said to cause diseases. To corroborate the above the following quotations may be cited :

"We kill the Krimis, visible and invisible, of the Alagandu, and of the Shaleena varieties" (Ath. 11-31-2)

"We kill the Krimis which inhabit the bowel, the chest and the head which find their way into those parts through various channels" (Ibid-iv)

"We kill the Krimis that are to be found in the hills, the forests, the plants, the lower animals and water, which have entered our body (through wounds and through our food and water—Saayana Bhaashya). We kill their very birth". (Ibid—v).

The sun's rays have been recognised as effective destroyers of these germs.

"The rising sun kills with his rays, the germs that pervade the world, the setting sun does the same. (Ath. 11-33-1)

"Antarhitasareerah manushyopadrava kaarinaḥ gana vise-shaah bhootah uchayante" (Sukla Yajurvedaantargata Rudra).

“Particular groups of minute beings which do harm to men are called Bhootas”

The Bhootas of the Vedas are nothing but Krimis—visible or invisible—which do harm to men.

SEX DIFFERENTIATION IN PARASITES

“*Sarveshaam cha krimeenaam sarvaa saam cha krimeenaam
Chinadyasmanaa siro dahaamyagninaam mukham.
Itoraaja krimeenaa mutaishaam sthapadi rhatah
Hato hata maa:aa krimirhata bhraataa hata swasaa.*”

In these two Srutis, the sex of the parasite is referred to. Both male and female parasites are to be destroyed. It was considered necessary to kill the king (Raja) of parasites as also the queen, so that the whole family including the father, the mother, male and female children may all be destroyed. The drug used for killing the parasites appears to be Agni (Plumbago Rosia). *

YUKTIVYAPAASRAYA IN THE VEDAS

The mention of Mantras (charms) in abundance in connection with cure of diseases does not mean that the medicinal properties of drugs were unknown to the physician of this period. The mention of one hundred and one thousand medicines is remarkable. Many hymns describing the varieties of herbs and medicines are found in the Vedas. “*Satante raajan Bhishajah sahasra urveem gabheeraa sumatiste*” (Rig Veda 1-4-29).

Numerous such other references are to be met with as one passes through the Vedic literature.

The knowledge of Materia Medica of the Vedic physician, when nothing about systematised medicine was heard of in other count-

* For further information, the reader is referred to “Vedic Parasitology” of Sri Pandit Pandurangi Subbaraya Sarma, Cocanada, published in the issues of the Journal of Aayurveda, Calcutta, of June, July and August, 1936.

ries, was wide. Classification of plants according to their external appearance as well as their medicinal virtues was also attempted.

We find in Rig Veda even references to cryptogamous or flowerless plants and phanerogamous or flowering plants which refer to the knowledge of botany attained by the physicians of this period.

“*Yaahphalineeryaa aphalaa apushpaa yaascha pushpineeh.*” (X-97-14)

Oshadheeh prati medadhvam pushpavateeh prasoovareeh” (X-91-3)

A skilful physician has been described as one who lives in a place abounding with the medicinal plants and who assiduously devotes his time to the acquisition of knowledge.

“*Yatraushadhih Samaagmata raa anah
Samitaviva viprah sa uchyate Bhishag
Rakshohaamivachataanah*” (R. V. 10-97-6)

The importance attached to the medicinal herbs may well be inferred from this.

Not only herbs but certain minerals as iron, gold etc., have also been mentioned in the Vedas. Such unmistakably clear descriptions give a direct proof that the Rishis of old had discovered the properties of minerals. They knew also their actions and the toxic effects. If the belief persists that the genesis of metallic treatment of diseases belongs to the Taantric age only, the false obsession, that it was absolutely unknown to the ancient Aayurvedists should be discarded on the strength of these incontestable proofs. Many Rasa preparations have been attributed to the Vedic Gods.

SOME DRUGS AND THEIR USES IN THE VEDAS

We give below a few references to drugs and the diseases in which they are recommended in the Vedas. They are very interesting and give us important hints concerning their therapeutic value, part of which is evidently forgotten at the present day. Atharva Veda mentions Rajani in the cure of jaundice and speaks of Kustam as

second to none in curing leprosy. Kustam has been described next to Soma in curing diseases. Certain drugs as Jangida (Apaamaarga) etc., have been referred, the identification of which is doubtful. Rig Veda mentions Haritala (B. 1-50) in connection with the cure of jaundice. Suparna, Aasuri, Suroopa, Syaama (Bhringaraaja) in skin diseases (1-24-1-4); Prsniparni in abortions and the ailments of blood (2-25-1-4); Harina Sringa in Kshaya, leprosy and Apasmaara (3-7-1-3); Sataavari and Doorvas as Rasaayana (3-11-1-8); Rohini in fractures (4-12-1-7); Sahadevi and Apaamaarga in relieving thirst (4-17-1-8); Apaamaarga as tooth brush (7-61-1-3); Kushtam in Raajyakshma, leprosy, malarial fevers and as a universal remedy (5-4-1-10); fumigation of the same in malarial fevers (17-39-1-10); Jangida in Asmari, Vishkandham (a Vaata disease), malaria, Swrtra, Dadru, Paamaa etc. (19-39-1-5); Varana in Yakshma (6-85-1-3); Pippali in Vaata Vyaadhis (6-109-103); Guggulu as fumigation in Yakshma (19-36-1-3); Ajasruni and Guggulu in diseases that spread through water and air: Aswatha, Nyagrodha, Sikhandi etc. in all Prasaarni (Saamkramika-contagious) Rogas: (4-36-1-12) Brahmana (a kind of herb) as an antitoxic (4-6-1-8); Madhuka, a climbing plant, as an antitoxic in snake poison (7-56-1-8) are among some of the Oshadhis that are mentioned in the Vedas.

SOMA, THE KING OF PLANTS

The plant, Soma has been praised as the elixir of life or Amrita (Rig-B-2-2) and was considered as the king of plants. The Rigvedic Aaryans believed that by drinking the juice of the plant, they could conquer death. (Apaama soma amritaa abhoova). The whole of the ninth Mandala of the Rig Veda teems with the description of the preparation of Soma in different varieties and the apparatus used in the methods, filters, vessels etc. which all have a historical importance in connection with medicine.

A LIST OF DRUGS IN THE VEDAS

The names of a few more drugs that have been incidentally referred to in the Vedas are given below in addition to those mentioned above.

Aamla, Askni * (Neelini) Aswagandha, Arundhati (Laaksha), Anjana (Neelanjana), Bilva, Kaanda Visha, Karanja, Khadira, Krishna, Kumuda Palaasa Paatha, Plaaksha, Parni, Priyangu, Traayamaana Trapu (tin) etc.

TAKMAN, THE MALARIAL FEVER

But the chapter will be incomplete without a special reference to Atharvan's Takman, which makes us believe that the ravaging fever, malaria of today was known to the age of this Veda in entirety. Takman resembles modern malaria in factors of causation, signs and symptoms, complications and types. Shivering, burning sensation etc., are found as the symptoms for Takman. Even jaundice has been referred to as one of the complications of Takman. Takman originally ravaged Gandhara, Mrijabat Anga and Magadha and its original habitats are those of the Mahaurasas, Mujavants; and Baahilkas. There are several hymns in the Atharva Veda against Takman, the man eating monster. We find Kushtam (Costus Arabicus) extolled as a febrifuge for Takman. The sages had thoroughly studied the disease in all its aspects.

REFERENCES TO LIGHT AND CHROMOTHERAPY

To the Rig Vedic Aaryans, the sun was a great physician. They believed health and ill-health were under his control "Aarogyam Bhaaskaraadichyet". He is prayed for the cure of heart diseases and jaundice. He is considered to be the greatest purifier.

*"Yena Paavaka chakshasaa bhuranyantamjanaa
anutwam Varuna vasyasi"* (Rig Ved 1-7-6)

The sun was considered to be the infuser of energy into all creatures. "The sun illuminates the atmosphere and all the regions

*The late Sri Kompella Chenchu Ramaiah Garu of Kaalahasti mentioned that Neelini—Indigo—was mentioned in the Vedas as a cure for leucoderma and since then I used it with considerable benefit in leucoderma—A. L.

of the earth, whose golden arms are stretched out to bless and infuse energy into all creatures. (R. V. 11-38-2)

He is considered to be the Lord of the vivifying power and nourisher. (Rig Veda IV-53, 3)

For the germicidal action of sun's rays see under Bacteriology.

HYDROTHERAPY

That transparent water is beneficial and conduces to the excellence of complexion and increase of vigour is mentioned in numerous Mantras. Water was considered to possess disinfectant qualities.

"Aapo hi shta mayo bhuvasthaana oorje dadhaatana" etc. is a familiar Mantra of the daily prayer, meant to purify the water dedicated to the supreme being.

"Inside the waters is Amrita. There is medicine in the waters."

*"Apsvamtaramritamitsu bhesajaa mapamuta
prasasta yo devaa bhavaa vaajinah"* (Rig 1-23-19)

"Soma has told me that the waters contain all the medicaments. That Agni who is the benefactor of the universe is also contained in the waters. Therefore the waters contain all the medicaments."

*"Apsu me Somo abhavee dantar visvaani bhesajaa;
Agnin cha visva sambuhva maapas cha visva bhesajeeli".*
(Rig-I-Anu-5-Sut-6-Hys-19-23).

SURGERY

The Aswini Kumaaras were the celestial physicians and surgeons who were extolled in many hymns for their cures of diseases and feats of surgery. The hymns addressed to Aswinis throw a special light on the history of surgery and medicine of India. They were experts in orthopaedic surgery. They were able to make and fit artificial legs made of iron and were experts in the treatment of eye diseases. They made an artificial leg to Vishpala and fitted it when she lost it in a battle. They were addressed as "Madha Vidya Visaa-

radaas" i. e. capable of connecting the severed head to the trunk and giving life.

Rasaayana Chikitsa was also developed as a special branch of medicine. They (Aswinis) have been credited as having rejuvenated old Chyavana Rishi, and as having cured the blindness and lameness of Paravraja.

MIDWIFERY

Obstetrics and gynaecology and especially obstetrics were handed over to women specialists. Susha, Vishkala, Sinivaali, Gaugu, Kuhu, Saraswati, Anumati, Saavitri etc. are among the midwives of the Aayurvedic literature, names to conjure with, who by their skill, technique and success secured a mention of their names in Atharva Veda

During labour, dorsal position was favoured (Rig. Ved. 61-3). For asphyxia neonatorum, artificial respiration was resorted to (Sp. XI 8-36)*

DAIVAVYAPAASKAYA CHIKITSA-TREATMENT BY FAITH

Form the descriptions we come across in the Vedas, we find that Daivavyapaasraya Chikitsa was also prevalent. Vedic sages used to call in the assistance of Gods. in the form of prayers, who were believed to possess a knowledge of medicines. Attempts at cure of the disease were made through spells, amulets and incantations. Hymns relating to medicine are found in abundance addressed to Indra and other celestials and even to Vanaspatis.

SPELLS AND AMULETS, (MANTRAS AND MANIS).

In Atharva Veda special Mantras and special Manis—amulets—have been prescribed for special diseases. Thus we find a Mantra against jaundice (Book-I-22), against leprosy (B 1-23 and 24), a water

*For further particulars the reader is referred to "Midwifery in Ancient India" by Dr. G. N. Mukherjee published in the 1931 1932 Volumes of the Journal of Aayurveda, Calcutta.

cure Mantra in which the medicinal properties of water have been described [3-2-3], against hereditary [Kshetreya] diseases, a Mantra against dangerous diseases, Mantra against consumption [B 2-34.B.6.14 B 98], against cough and even to promote growth of hair [B.6-21-30.] to remove sterility from women and ensure birth of boys [B.3- 23,B.6-11], Mantra to ensure conception [B-6-47, to facilitate child birth [B-2-25], Mantra against fiends that cause abortion [B-2-25], against poisons and to banish various diseases are met with. Thus, we find in the Vedas several diseases with remedies in herbs, charms and amulets in conjunction with incantations. The efficacy of the Mantras depends upon the power of the mind of the reciter. In certain cases, even a person of mediocre or poor capacity may be blessed with Mantra Sakti by the grace of the competent Guru. Regarding efficacy of Mantra and the science Mantra Saastra the reader is referred to Sir John Woodroff's "Serpent Power" and Telugu edition of Darsanas by Dr. A. Lakshmiapati under Mantra Yoga and Kundalini Yoga.

Essence of the Saastra is to bring under control of the operator certain portion of the eternal and universal energy into a limited sphere and make it operate at the will of the operator.

MEDICINE AS A PROFESSION

Among professionals, Rig Veda mentions physicians also. In the Rig Veda, a physician in search of patients is mentioned, by which we can infer that during the Vedic period there was also some sort of advertisement and competition among physicians.

Rudra has been in many places addressed as physician of physicians [Bhishaktama Bhishak], who carried medicines with him. The physicians were amply paid in recompense for their services and even were presented with horses, cows and dress etc. [Rig 10-97-4].

But from Susruta Samhita we find that the status of medical men in society was not high and was considered to be inferior religiously and that from the time the Aswinis gained success in replacing the head of Yajnapurusha and thereby admitted to have a share of sacrificial food, the status of the medical profession was elevated. [Sus. Soo. Ch. I].

The physician was identified with Gods and when relief from disease was obtained, the Aswinis were praised. Hymns also were sung eulogising the properties of drugs when such relief was obtained.

In the earlier epochs of the Vedas universal deities as the Aswinis, Rudra, Indra etc. were in relation with disease and medicine. Later on medical functions were attributed to definite deities.

During this period, three classes of medical practitioners existed viz., Salya Vaidyaas (surgeons), Bhishaks (physicians), and Bhishk Athavans [faith curers].

ĀYURVEDA AND THE VEDAS

We have at present no medical or surgical books belonging to that period. Special treatises must have been composed independently on the science of Āyurveda. They must have existed because the science is already so elaborate. (Soos. Su. Ch. I).

"As one proceeds through the oceanic studies of the Vedas, eye is regaled thus with the refreshing spectacles of researches in anatomical, physiological knowledge, etiology, symptomatology, Materia Medica, surgery, midwifery, embryology etc. even in those days of indeterminable antiquity. Many modern theories will also greet the eye of the laborious reader there as new orientations of the old ones which had long ago dawned upon the un-blurred minds of the ancient sages. As Pardy Lukis rightly observed, "There is no doubt whatever that their ancestors (Indians) knew ages ago many things which are now-a-days brought forward as new discoveries."

The physicians of the Vedic times possessed a knowledge of the various branches of medicine.

The positive knowledge of medicines was assiduously acquired and used by the physicians while the surgeons afforded relief by the use of instruments and peace of mind was secured by the aid of super-human means viz., Yoga and Bhakti and the invocation of Gods.

Usually when the Westerners describe the Vedic period, they speak of primitive times. In fact, Aryan civilization was at its

highest during the Vedic period. Simple living and high thinking certainly does not mean primitive civilization.

In brief so much for the Vedic period and Aayurveda in the Vedas, What we have summarised is only a bird's eye view of the vast fields covered by the Vedas in the history of Aayurveda upto 2,500 B. C.

THE SAMHITA YUGA OR THE PERIOD OF COMPILATIONS

This period extends from 2,500 B. C. to 500 B. C; and marks the highest development of the Aryan literature on all sides. It is believed that during this period, the two great epics, viz, the Raamaayana and the Mahaabhaarata have been compiled, During the later part of this period, the six orthodox systems of Hindu philosophy, popularly known as the Shaddarsanas developed side by side and took the form in which they are found today. The Aayurvedic Rishis, adopting some of Siddhaantas of these Darsanas suitable for their science, gave a definite and a scientific shape to Thridhaatu Siddhaanta around which the whole web of Aayurveda was woven. The Sootras and Vedaangas were also composed during this period and as such this period is generally known as the Sootra Yuga also. These Rishis or Aachaaryas systematised and generalised the science of Aayurveda by recording the observations already made by their predecessors during the Vedic age and also by them as well. Most of the names of these Aachaaryas are referred to by Paanini, Kaatyaayana and Paatanjali. Those Aachaaryas created a bulky medical literature by compiling original Samhitas bearing their names. These Samhitas present a picture of the positive investigation and the scientific development of Hindu medicine in its various and show us how our Rishis were acquainted with scientific methods of investigation, accurate observation, critical examination and generalisation of the effects of nature on the health of man. Various powerful educational institutions were established during this period.

It was during this glorious period, the Rishis met in conferences to find out means for the alleviation of the diseases as chronicled in

Charaka (Sootra Chap I). As no definite data are available, it is not possible to fix the dates of these Rishis and the time of these eventful conferences.

AAYURVEDA IS ETERNAL—NITYAM

Apart from the traditional view, Aayurveda (the knowledge of life) in virtue of its having no beginning [Anaaditvaat], of the indicating those truths which arise from the very nature of living beings [Swabhaava Samsiddha Lakshanatvaat], and of the eternal nature of the actions of existings about which it deals [Bhaava Swabhaava Nityatvaat] is considered to be an eternal science.

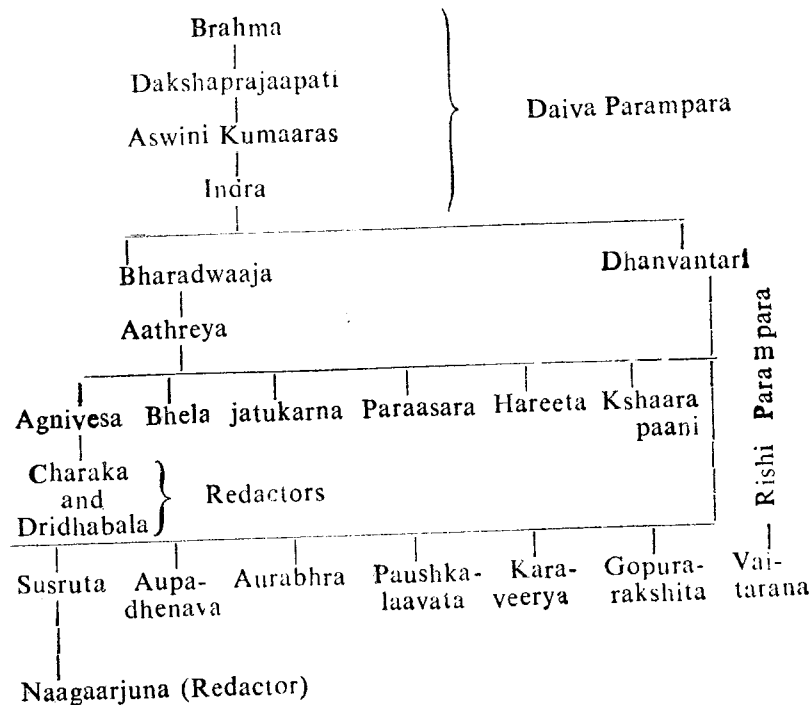
TRADITIONAL GENESIS OF AAYURVEDA

The origin of medicine has been attributed to their Gods by all the civilised nations of the ancient world. It was referred by the Aaryans to Brahma the Supreme Creator of the universe, by the Greeks to Appolo, by the Egyptians to Thot, by the Chinese to Shen Nung etc. The legends relating to the origin and progress of Aayurveda and the way in which it has been handed down from the Gods to sages are of interest. These are briefly stated in the extant works of Charaka, Susruta etc.

TEACHERS OF AAYURVEDA

Brahma, the Creator of the universe, evolved Aayurveda by meditation and imparted it to Prajaapati. He taught it to the twin Gods, Aswini Kumaaras, who become the divine physicians. From Aswinis, Indra, the celestial ruler learnt it, who in turn taught it to many Rishis who approached him. Of the pupils of Indra, two viz; Sage Bharadwaaja and King Divodaasa of Benares, distinguished themselves as prominent instructors and originators of the school of physicians and the school of surgeons respectively. Thus the science of Aayurveda, has been brought into this world Brahma through the celestials.

GENEOLOGY OF THE TEACHERS OF AAYURVEDA



By reason of its benefiting man both in this as well as in the next world. Aayurveda has been held as the most auspicious and sacred of all sciences and was esteemed by men conversant with the Veda. Vedas like Yajur Veda expound topics that relate to the acquisition of happiness in the next world only and as such they are termed sacred while Aayurveda deals with topics that concern both with this as well as the next world by describing principles of life and health which are essential for the acquisition of the four aspirations of man.

*"Tasyaayushah punyatamo vedovedavidam matih
Vakshyate yanmanushyaanaamlokayorubhayorhitah,
Auye Yafurvedaadayah praayasah paraloka hita mevaordham
vadantitena punyaah. Punyatama schaayamaayurvedo yasmaan*

*mausyaanaam ubhayo lokayo ryadhita maayuraarogya Saadhanam-
dharmasaadhanam cha tad vakshyate. Te naatisayena punyaama
sthadhaa veda vidaancha poojita iti."*

According to Susruta, the self-begotten Brahma composed the science of Aayurveda in a hundred thousand verses divided into a thousand chapters. [Su. Soo. Chap. 1.]

Aayurveda consists of many Sthaanas or Angas [departments] viz., Sootra, Saareera, Nidaana, Chikitsa Vimaana, Sidhi, Kalpa etc. The Achaaryas compiled all their Samhitas in accordance with these Sthaanas which are the chief Angas of Aayurveda.

Even before the time of the Aachaaryas, Chikitsaanga of Aayurveda had developed into eight different special branches which are popularly known as the Ashtaangas. Chikitsa, being the most important Sthaana of Aayurveda, is easily taken as the whole of Aayurveda and thereby mistakenly supposed that the whole science of Aayurveda has been divided into eight branches. Ash-taanga always mean Chikitsa alone.

A BRIEF LIST OF AAYURVEDIC WORKS

It is evident from the extant Samhitas and commentaries that numerous original classical works on each of the several branches of Aayurveda [Chikitsa] might have existed at least until 8 or 9 centuries ago. A classified list of some of these Samhitas is given below. This cannot be take as an exhaustive one, as many have to unearthed still. In this connection, an all India general search into the different libraries is a desideratum.

WORKS ON KAAYA CHIKITSA [GENERAL MEDICINE]

1. Agnivesa Samhita:—This is considered to be the greatest work of the Aathreya school and is believed to have been written by Agniveda. The present day Charaka Samhita is identified with it. It has been renovated by Maharshi Charaka and subsequently by Dridhabala, a Kashmiri Pandit.

It is opined that "Anjana Nidaana" was compiled by Agnivesa. As not a single quotation from this book is found in the commen-

taries of Chakrapaani, Vijayarakshita: Srikantha Datta etc. and as the language does not coincide with the ancient Sanskrit style, it is believed to be compiled by some author of the same name at a very later date. The subject has been dealt in a masterly way so as to be easily understandable even to a beginner though in a terse language.

2. Bhela Samhita:—This work was found in an incomplete condition in the famous Tanjore Library and though mutilated, has been published by the Calcutta University. Quotations from this book are freely found in the commentaries of Vijayarakshita, Sivadasa and others. Many are of opinion that Bhela Samhita and Bhaaluki Tantra are but two different names of the same book. But Dalhanaachaarya, in his commentary on Susruta Samhita, quotes both of them in the same context and as such this view cannot be tenable. Bhaaluki Tantra seems to be chiefly a work on surgery (see infra for Bhaaluki Samhita under works Salya Chikitsa).

3. Jatukarna Samhita:—A good number of quotations from this are referred by Chakrapaani, Vijayarakshita, Srikanta, Sivadasa etc.

4. Paraasara Samhita:—Quotations from this work are found in the commentaries of Vijayarakshita; Srikanta and Sivadasa.

5. Haareeta Samhita:—This has been quoted by Chakrapaani and Vijayarakshita. The printed book which passes now bearing this name is considered not to be the original Haareeta Samhita as the quotations referred to by the above commentators are not found in it.

6. Kshaarapaani Samahita:—Vijayarakshita, Srikanta and Sivadasa have, in their commentaries, quoted from this book. These six famous works belong to the Aathreya School.

7. Kharanaada Samhita:—Many quotations from this work are found in the commentaries of Vijayarakshita, Arundatta, Hemaadri etc. From the quotations given in the commentary of Hemaadri, one will be led to believe that his Kharanaada Samhita is different from that of the other commentators. Probably these two Samhitas may be by different authors of the same name.

8. Viswaamitra Samhita:—Chakrapaani, in his commentaries on Charaka and Susruta gives quotations from this work. Sivadasa also quotes from this in his commentary on Chakradatta.

9. Attri Samhita:—As ancient writers have not made any reference to his Samhita, the antiquity of this is doubted as also its age. Opinion are divided regarding the authorship of this Samhita.

Apart from the above texts, Maarkandeya, Aswini, Bhaarad-waaja, Bhaanuputra and other Samhitas are also known to have existed.

WORKS ON SALYA CHIKITSA (GENERAL SURGERY)

1. Susruta Samhita:—This is popularly known as Vridha Susruta and is considered to be the original of the existing Samhita. Some Aayurvedists regard both to be the same and see no difference between the two. However Sivadasa, the commentator of Chakrapaani, has extensively quoted from the Vridha Susruta and as such the latter view, viz., that both are the same, cannot be taken.

Aupadeenava Tantra:—Except its mention in Susruta Samhita, nothing remains of this work. However, references to this work occur in the commentary of Dalhana on Susruta Samhita.

3. Aurabhra Tantra:—The same remarks of the above Tantra hold good to this also.

4. Paushkalaavata:—Chakrapaani refers to this in his commentary on Susruta.

5. Karaveerya Tantra:—The reference to this author occurs in Susruta. During the age of the commentators, the book seems to be almost obsolete as could be inferred from the fact that very few extracts have been quoted from this book in the commentaries.

6. Gopurarakshita Tantra:—Quotations from this Tantra seldom occur in the commentaries. Many are of opinion that Gopura and Rakshita were two different authors who were contemporaries of Susruta and each of them wrote of Tantra.

7. Vaitarana Tantra:—Dalhana and Chakrapaani in their commentaries have frequently quoted from this book. This work seems to be more exhaustive than Susruta because of the extensive quotations made use of by the commentators from it, on subjects that are not dealt with or even mentioned in Susruta.

8. Bhaaluki Tantra:—It could be inferred, from the description of surgical instruments etc, as quoted by Chakrapaani from this

book, that this might have been one of the important works on Salya Saastra. Dalhana, Srikanta Datta and Vijayarakshita have referred to this book in their commentaries. It should be remembered that Bhela Samhita and Bhaaluki Tantra are not identical as is supposed by some, but are two different works.

9. Bhoja Samhita:— According to Dalhana, this is the work of Bhoja Maharshi who was a contemporary of Susruta. Therefore, this cannot be attributed to King Bhoja of Dharwar, the author of Raaja Maarthanda etc., as is generally supposed by some. From the quotations made use of by the commentators, this also seems to be an exhaustive compendium.

10 & 11. Kapia & Goutama Samhitas:— In the commentators on Susruta and Nidaana, quotations from these books are found.

WORKS ON SAALAKYA CHIKITSA (DISEASES OF E. N. T.)

These give the treatment of diseases of parts of the body situated above the clavicles such as the eyes, ears, nose, throat etc.,

1. Chaakshushya Tantra:— This is also called Chaakshushyena Tantra. Srikanta refers to this book in his commentaries.

2. & 3. Gaargya Tantra and Gaalava Tantra:— Dalhana, in his commentaries, mentions these Tantra.

4. Kaankaayana Tantra:— Charaka in many a place refers to Kaankaayana. Only Dalhana mentions in his commentary about this work. Quotations from this work seem to be rare in the other existing Samhitas.

5. Karala Tantara:— The author of this work, as stated by Dalhana, is Karala Bhatta. As no name of any Rishi is found with the surname of Bhatta, it is doubtful whether he is a Rishi or not but according to Dalhana and Srikanta Datta etc., this book belongs to a very ancient time.

9. Krishna Aatreya Samhita:—As to the authorship of this Tantra, opinions are divided. Some attribute this work to Punarvada Aathreya, but from a close study of the quotations from the commentaries of Srikanta and Sivadasa, it could be understood that Krishna Aathreya, the author of this Samhita and Punarvasu Aathreya are different from each other.

7. Nimi Tantra:— Many are of opinion that Nimi Tantra and Videsha Tantra are identical (see infra). Srikanta Datta has quoted from this work.

8. Shaunaka Tantra:—Some are of opinion that the author of this Tantra and the author of Shaunaka Samhita of the Atharva Veda are one and the same. Whether the author belonged to an ancient period or not, he has been referred to both by Charaka and Susruta in connection with foetal development. Charaka calls him Shaunaka of Madra country. However, it is curious to find that passages from it, as they occur in Charaka and Susruta on matters relating to the development of the foetus, are self-contradictory. This self-contradiction goes to prove that Shaunaka Tantra referred to by Charaka and the one referred to by Susruta may not be the same.

Dalhana ascribes the extracts he has made use of in his commentary to Shaunaka of Madra Desa. One will be inclined to believe from a study of extracts from this book taken by Dalhana and Chakrapani that this Tantra treats not only with surgery but anatomy and materia medica also.

9. Videha Tantra:— According to Susruta's own admission, this work is the principal foundation upon which his section dealing with diseases of the E. N. T. was written. This Work was believed to have been compiled by the King of Videha. As referred above Nimi Tantra and this Tantra are two different works and not identical.

Passages from this work are frequently quoted by Dalhana, Vijayarakshita, Srikanta Datta, etc. Dalhana and Srikanta Datta quote from Nimi and Videha Tantras on the same subject. From the phrase "Janako Videha", which occurs in Charaka, one may be inclined to suppose that this Videha Tantra might have been a compilation of Raajarishi Janaka.

BHOOTA VIDYA TANTRAAS (MENTAL DISEASES)

Though in the commentaries, no mention of an independent work has been made on this branch of treatment, this science seems to have flourished at one time. The following reference may be said to constitute the foundation of this science,

1. Susruta Samhita Uttara Sthaana Chap. 6.
2. Charaka Samhita Chikitsa Sthaana Chap. 8.
3. Vaagbhata, Uttara Sthaana Chap. 4-5.

It is probable that in ancient times, treatment of mental diseases might have been called Bhoota Vidya. The commentaries which date back a thousand years do not say anything about this science a fact which goes to say that this science might have been lost at a very early age.

WORKS ON KAUMAARA BHRITYA (PEDIATRICS)

1. Hiranyaaksha Tantra:—It could be gathered from the extracts quoted by Srikanta Datta that this work chiefly deals with the diseases of children.

2. Kaasyapa Samhita:—Recently a book has been published by Sri Yadavaji Aachaarya of Bombay under the name of Kaasyapa Samhita known as Vridha Jeevaka Tantra, This chiefly deals with the diseases of children.

3. In his Uttara Tantra, Susruta devotes not less than 12 chapters for the diseases of children—a fact which leads us to believe that at one time, this branch of Ayurveda was extensively cultivated.

4. A book by name Kaumaara Bhritya Tantra has been mentioned by Chakrapani. The author of this Tantra is not traceable.

5. Jeevaka and other Tantras:—Many Tantras on this subject seem to have been lost. Dalhana mentions in his commentary on Uttara Sthaana of Susruta, the names of Jeevaka, Pravataka and Bandhaka. All these authors are believed to be Buddhist monks, whose names are found in Buddhist history.

WORKS ON AGADA CHIKITSA (TOXICOLOGY)

1. Kaasyapa Samhita:—In the commentaries of Dalhana, Chakrapani and Srikanta, quotations from this work are found. As to the nature of the book, opinions are divided. Some say it is a book on general medicine. Some are of the opinion that this Kaasyapa is no other than the Rishi Kaasyapa as Mahaabhaaratha, who was

dissuaded by Takshaka while he was going to treat Parikshit for snake-bite.

2. Alambaayana Samhita:—Extracts from this work are given by Srikanta Datta in his commentary.

3. Ushanaha Samhita:—It is believed that Kautilya has chiefly based his remarks in connection with various cures for poisoning and the post-mortem examinations in his Artha Saastra on this text.

4. Sanaka Samhita:—This has been formerly translated into Yavana language by the Yavanas. This has been discovered by Prof. Muller a German scholar.

5. Laattyayana Samhita:—In Dalhana's commentary, extracts from this work are met with.

6. Brihaspati Samhita:—A text bearing his name seems to have existed.

RASAAYANA CHIKITSA

1. Paataniali Samhita:—This has been quoted in many places by the commentators.

2. Naagaarjuna Tantra:—The authorship of this is considered by many as belonging to Rishi Naagaarjuna whom Chakrapani mentions in his Samgraha. Others assert that it is the production of Aachaarya Naagaarjuna, the Buddhist monk, whose name is mentioned on the stone pillar at Paatiliputra.

3. & 4. Kashaputa Tantra & Arogya Manjari:—Both of these are by Naagaarjuna, Vijayaraksita, in his commentary on Nidaana, quotes from Arogya Manjari,

5, 6. & 7. Vyaari, Vashista & Maandavya Tantras:—These principally deal with Rasa Saastra (chemistry) and date from a very ancient time. We find the names of Vyaari and others in Rasaratna Samuchaya in which is appended a list of votaries of this science.

WORKS ON VAAJEEKARANA CHIKITSA

The ancient Aayurvedic Rishis can with pardonable pride, be said to have specialised highly in this branch of treatment a glorious

achievement for the conservation and restoration of vim and vigour, by the preservation of the vital fluid viz., the semen, a principle now coming to be faintly realised in the Western medical science. The importance of this subject in the Western medicine has been of late brought to light by the researches of Brown Sequard and Metchinkoff and latterly by the demonstrations of Voronoff. The ancient Rishis appreciated and realised the importance and high value of the internal secretions and their inherent benefits especially of the sexual glands and prescribed certain rules regarding the sexual life of an individual.

Many a Samhita seems to have been written on this branch of Chikitsa from the references made to certain names of the authors in Vaatsyaayana Kaama Sootraas. But, as the commentators have not made any reference regarding these texts in their commentaries, it seems that these originals might have been lost at least a thousand years back. As Vaatsyaayana mentions Aupanishadic treatment and processes of sexual invigoration, it is evident that these texts were not lost two thousand years back.

1. Kuchumaara Tantra:— Kuchumaara was one of the seven Rishis who wrote the independent Samhitaas on this subject. Vaatsyaayana in his Kaamasootra states that Kuchumaara Tantra was at one time a very valued and important work on sexual science.

2&3. Swetaketu & Paanchaala Tantraas:— Swetaketu, son of Uddaalaka, and Paanchaala, son of Babru, are believed to have condensed the Samhita compiled by Nandi which covered a 1000 chapters. The former abbreviated it into 500 chapters while the latter further reduced and classified it into seven parts.

4. Vaatsyaayana Kaamasootras:— In the later decades though not directly connected with Vaajeekarana Chikitsa but connected with the scientific art of human breeding, certain treatises on sexual science viz. Kaamasaastra, Anangaranga, Ratisaastra etc., have been composed expounding problems of vital importance the couple on various aspects which challenge comparison to recent researches on these topics. Of these, Vaatsyaayana's Kaamasootraas stand eminent. Regarding Vaatsyaayana, difference of opinion exists. Some say that he is no other than Chaanakya or Kautilya, the famous minister of Chandra Gupta, while others hold him as a

Rishi. Whatever it may be, it is beyond that he existed more than two thousand and five hundred years ago and consequently Swetaketu and paanchaala belonged to an even earlier date.

PASU CHIKITSA SAMHITA (VETERINARY SCIENCE)

In ancient days, elephants and horses formed important agents in the wars and as such particular care was taken regarding their health. Animals were the wealth of the ancient Aaryans and prayers for their protection are found in the Vedas. No wonder then that this branch of Aayurveda was extensively developed side by side with human science. Many books are found on this branch of Aayurveda belonging to this date. But the following may be said to be important.

1. Paalakaapya Samhita:— This is otherwise known as Hasti Aayurveda or Gaja Aayurveda. This is an exhaustive work on the treatment of diseases of elephants which was written in the form of a discourse by Sage Paalakaapya delivered to Romapaada, king of Anga Desa. The scheme of this Samhita, in the arrangement of the topics, the naming of the Sthaanaas, etc, more or less coincide with those of other medicinal Samhitas. This was published by Aanadaasramam, Poona.

2. Gotama Samhita:— This is now rare and is chiefly concerned with the treatment of the diseases of the kine.

1. Saalihotra Samhita:— This deals chiefly with the diseases of horses. This forms the basis of Aswavaidya of Nakula and jaiya Datta. Though it is very rare now, at one time it was a very valuable text and under the name of Shalatore was translated by the Arabians into their language.

AAYURVEDA MADE AN UPAVEDA

Within a short compass, we give below a summary of the advancement of Aayurveda in various departments during the Samhita period.

The name Aayurveda may be said to have come into existence during this period only, as the term Aayurveda does not occur anywhere in the Vedas. From the available medical treatises

belonging to this period, one will find that the topics relating to medicine which were hitherto lying scattered in fragments here and there in the Vedas were collected and systematised on a scientific basis and to the literature and science thus evolved, the name of Aayurveda was given which was thence considered an Upaanga* (a branch of Veda) by the Rishis.

It was during this period that the mighty edifice of Aayurveda was raised upon the deep Daarsnic foundation supported by two Upatshambhasas or pillars viz., the Paanchabhoutika and Tri-Dosha Siddhaantaas.

ANATOMY

The excellence of the anatomical knowledge attained by the Aayurvedists of this period can best be understood from the testimony

*According to Dalhana; an Upaanga is minor organ "Angam eva alpatwaat uyaangam" i.e., while extremities, head and trunk etc. are regarded as Angas, fingers, toes and nose etc. are regarded as Upaangaas. But it is curious how Aayurveda, which, according to Susruta, originally contained 1,00,000 verses which was more than ten times the bulk of Atharva Veda, which contains 6,000 verses and 1,000 prose lines only, was made an Upaanga of the latter. And of the two viz., Atharva Veda and Aayurveda, both of which deal with the curing of diseases, the former, more on account of religious value was held higher and primary. While commenting upon Kousika Sutra 25-2 Daariladhata gives us a hint regarding the points of coincidence and difference between Aayurveda and Atharva Veda. He says 'Dwiprakaara Vyaadhaya, Aahaara Namittaa, Asubhani-mittaa scheti. Tatra Aahaara Samuthaanaam Vaishamya Aayurvedam Chakaara Abharma Samuddhaanaamtu Saastra midam Uchyate.' There are two kinds of diseases, those that are produced by unwholesome diet (metabolic diseases) and those that are produced by unwholesome transgression—Adharma—of the rules of hygiene (microbic diseases). Aayurveda was intended for curing the former and the Atharva Veda for curing the latter. By the commonness viz., quality of curing diseases, Atharva Veda becomes related to Aayurveda, "Atharvedasya Aayurvedatvam Bhavati."

of Dr. Wise in his commentary on "The Hindu System of Medicine." "The Hindu philosophers undoubtedly deserve the credit of having entertained sound philosophical views, respecting the uses of the dead to the living and were the first scientific and successful cultivators of the most important and essential of all the departments of the medical knowledge viz., practical anatomy. "The importance and utility of the knowledge of anatomy in the practice of medicine and Yoga was realized and Susruta says that it was for the benefit of the medical men and contemplative Yogis that he has written the anatomical portions. In order to verify the knowledge acquired from the texts, Susruta advocated a practical method of dissection called Avagharshana (dissection).

Dr. Hornle remarks, "The Views of the early Indian anatomists are surprisingly accurate. This is due to the fact that they were accustomed to the practice of preparing the dead human body for actual examination, and that therefore, their views were the direct result of an experimental knowledge of the skeleton."

Susruta describes at the end of the fifth chapter of Sarsera Sthaana, his process of dissection as follows:— "No accurate account of any part of the body including even its skin, can be rendered without a knowledge of anatomy. Hence, anyone who wishes to acquire a thorough knowledge of anatomy must prepare the dead body and carefully examine its parts. For it is only by combining both direct ocular observation and the information of the text books that thorough knowledge is obtained.

"For this purpose, one should select a body which is complete in all its parts. It should also be the body of a person who was not excessively old, or who died of poison or of a protracted disease. Having removed all excrementitious matters from the entrails, the body should be wrapped in rush or bast or grass or hemp and placed in a cage. Having firmly secured the latter in a hidden spot in a river with no strong current, the body should be allowed to decompose. After an interval of seven days, the thoroughly decomposed body should be taken out, and very slowly scrubbed with a whisk of grass roots or bamboo or bast. At the same time, every part of the body, great or small, external or internal, beginning with the skin should be examined with the eye one after the other, as it becomes disclosed in the course of the process of scrubbing."

To Susruta and to him alone the credit and glory of practising such human dissection as the first in the world may be attributed it was only about 300 B. C. that we know of such dissections being encouraged in the Alexandrian School in the West. The doctrine of Marmaas (vital centres in the body), conception of the Shad Chakraas (the nerve plexuses) and of the subtle and causal bodies which are all beyond the cognition of our senses, stand even today as marvels of Hindu anatomy.

EMBRYOLOGY

This was carefully investigated into and studied. The successive processes of development taking place in womb from the time of conception to the birth of the child were recorded after a careful and keen observation. Even an Upanishad by name Garbhopanishad was devoted to this branch of science. Sex-determining factors were investigated. The influence of certain religious ceremonies and the use of certain herbs on establishing the sex of the foetus were described. Even the possibility of conception without actual sexual union was conceived. Causes for unnatural births (Teratology) for plural births and even the causation of pregnancy by the influence of dreaming under certain circumstances and thereby be getting a boneless foetus were explained.

PHYSIOLOGY

The process of digestion and assimilation and the circulation of Rasa and Rakta Dhaatus and even of the three Dhaatus Doshaas) were described. The nervous system was specially studied by the Yogis and the Taantrikaas. (See Philosophical Background—by Dr. A. Lakshmipathi.)

MATERIA MEDICA

This was enormously studied on the basis of Panchabhautika and Thridosha Siddhaantaas. The effects of the five inherent properties of every substance, viz., Rasa, Guna,

Veerya, Vipaaka and Prabhaava, on health and disease were explained. All substances were classified under different classes according to the nature of the origin, as mineral, vegetable and animal, and also according to their properties and actions, as Deepana (carminative), Paachana (digestive) etc. Each drug was given different names (synonyms) indicating its medicinal properties, actions, botanical description, habitat etc,

Hindu sciences teach that plants have a sort of dormant or latent consciousness and are capable of feeling pleasure and pain. In Saanti Parva of Mahaabhaarata, we find references to the sensitiveness of plants to heat, cold, to the sound of thunder etc., as well as to odours both pleasant and unpleasant. Charaka divides plants into four classes viz, Vanaspities (trees bearing fruits without flowers); Vanaspatyas (trees bearing both flowers and fruits); Oushadhees (herbs that wither after fructification) and Virrudhas (other herbs with spreading stems).

PHARMACY

Side by side with the development of the science of Materia Medica, the art of pharmacy was also developed to a very high degree of perfection. Medicines were prepared in a variety of forms as powders, decoctions, pills, medicated oils, and ghees, confections, Aasavaas and Arishtaas (products of fermentation). Purification of minerals and their reduction to Bhasmaas were known. Compounds of iron, gold, calcium and arsenic and mercury were prepared for internal administration.

Baeteriology was studied and different kinds of Krimis (Pathogenic, visible and invisible parasites) were described. Regarding the existence of micro-organisms, clear references were given in the Saanti Parva of Mahaabhaarata. "Sookshma Yoneni Bhootaani Tarkagamyani Kaamichit—Pakshmanopi Nipaatenam Yo Saam Syaati Skandha Paryayah". There are in this world so many micro-organisms invisible to the naked eye, the minuteness of the existence of which can, however, be imagined, when we say that by merely moving of one's eyelids their limbs will be destroyed

DIAGNOSIS

Diagnosis of diseases was made through its five-fold methods viz., Panchalakshana Nidaana. Prognosis was determined through dreams of the patient and through the messenger. The symptoms foreboding death in different diseases formed a special study of this period. (See Arishtaas in the Indriya Sthaana of Charaka),

SURGERY—CONCENTRATION ESSENTIAL

Charaka emphatically says:—

*“Gnoana Bnddhi Pradeepena
Yonaavisati Tatwavid (Yogavid)
Aaturasya Antaraatmaanana
Nasa Rogaans Chikitsathi.”*

A physician who cannot enter into the innermost soul of the patient with the aid of the bright lamp of his own knowledge (or Yoga according to a different reading) cannot successfully treat any diseases. The physician may use any number of instruments and may take the aid of all laboratory tests, but unless he can concentrate his own attention upon the clinical study of the case, he is likely to be misled in his judgement. If praise were bestowed upon Aayurvedic treatment even by foreigners, this is due to its own peculiar methods of diagnosis and treatment. The secret of Aayurveda is that the physician should be the master of his senses and of the instruments used by him to help these senses and not be a slave to them. This is what is understood by the word Yoga or concentration. He should have absolute respect for truth-Tatwa. Yogic methods of obtaining knowledge through Samaadhi (concentration) is really what is meant by Charaka in the above quotation.

Regarding the excellence of surgery attained during this period, the reader may be interested to know what the Encyclopaedia Britannica says.

SURGICAL INSTRUMENTS

Susruta describes more than 100 surgical instruments, made of steel. They should have good handles and firm joints, be well polished and sharp enough to divide a hair, they should be perfectly clean and kept in flannel in a wooden box. They included various shapes of scalpels, bistouries, lancets, scarifiers, saws, bone nippers, scissors, trocars and needles. There were also blunt hooks, loops, probes, (including a caustic holder), directors, sounds, scoops and forceps (for polypi etc) as well as catheters, syringes, a rectal speculum and bougies. There were fourteen varieties of bandages. The favourite form of splint was made of thin slids of bamboo bound together with string cut to the length required. Wise says that he has frequently used this admirable splint particularly for fractures of the thigh, humerus, radius and ulna and it has been subsequently adopted in the English Army under the name of the patent rattancanne splint.

OPERATIONS

Fractures were diagnosed, among other signs, by crepitus. Dislocations were elaborately classified, and the differential diagnosis given; treatment was by traction and counter-traction, circumduction and other dexterous manipulations. Wounds were divided into incised, punctured, lacerated, contused etc. Skill in extracting foreign bodies was carried to great height, the magnet being used for iron particles under certain specified circumstances. Inflammations were treated by the usual anti-phlogistic regimen and appliances; venesection was practised at several other points beside the end of the elbow; leeches were more often resorted to than the lancet, cupping was also in general use. Poulticing, fomenting and the like were done as at present. Amputation was done now and then, notwithstanding the want of a good control over the haemorrhage; boiling oil was applied to the stump, with pressure by means of a cup-formed bandage, pitch being sometimes added. Tumours and enlarged lymphatic glands were cut out and an arsenical salve applied to the raw surfaces to prevent recurrence. Abdominal dropsy and hydrocele were treated by tapping with a

trocar; varieties of hernia were understood, omental hernia being removed by operation on the scrotum. Aneurisms were known, but not treated. Besides the operations already mentioned, the abdomen was opened by a short incision below the umbilicus slightly to the left or the middle line, for the purpose of removing intestinal concretions or other obstruction (laparotomy). Only a small segment of the bowel was exposed at one time; the concretion, when found, was removed, the intestine stitched together again, anointed with ghee and honey, and returned into the cavity. Lithotomy was practised, without the staff. There was a plastic operation for the restoration of the nose, the skin being taken from the cheek adjoining, and the vascularity kept up by a bridge of tissue. Ophthalmic surgery included extraction of cataract. Obstetric operations included caesarean section and crushing the foetus.

MEDICAL TREATMENT IN SURGICAL CASES

The medication and constitutional treatment in surgical cases were in keeping with the general care and elaborateness of their practice, and with the copiousness of their materia medica. Ointments and other external applications had usually a basis of ghee or clarified butter, and contained, among other things, such metals as arsenic, zinc, copper, mercury and sulphate of iron. For every emergency and every known disease, there were elaborate and minute directions in the Saastraas, which were taught by the physicians to the young aspirants under the Gurukula system.

TRAINING OF PRACTITIONERS

Book learning was considered no use without experience and manual skill in operations; the different surgical operations were shown to the student upon wax spread on a board, on gourds, cucumbers and other soft fruits; tapping and puncturing were practised on a leathern bag filled with water or soft mud, scarifications and bleeding on the fresh hides of animals from which the hair had been removed, puncturing and lancing upon the hollow stalks of water-lilies or the vessels of dead animals; bandaging

was practised on flexible models of the human body, sutures on leather and cloth; the plastic operations on dead animals, and the application of caustics and cauteries on living animals. A knowledge of anatomy was held to be necessary, but it does not appear that it was systematically acquired by dissection. The whole body of teaching is itself the slow growth of much close observation and profound thinking during the vigorous period of Aryan progress. Pathological principles were not wanting, but they were derived from a purely arbitrary or conventional physiology (wind, bile and phlegm) and the whole elaborate fabric of rules and directions, great though its utility must have been for many generations, was without the quickening power of reason and freedom, and became inevitably stiff and decrepit.

Certain plasters were recommended for rapid filling up of flesh in the wounds and ulcers (Utsaadana) and also for the removal of over-growths (Avasaadana) over them. Romasanjaanana is a speciality of Hindu surgery. It is the application of certain plasters for the growth of hair over healed ulcers.

Thus it could be inferred that the ancient Hindu surgeons of this period were bold experts in their art and performed many major operations which are considered to be the triumph of the modern day surgery and midwifery.

Surgeons were employed by the royal court and their quarters were located near that of the king's. During military marches, surgeons accompanied the army to the fields. They used to attend to the purification of the poisoned atmosphere, food of cattle and men, fuel and water supply. Even the shades of trees were said to be poisoned by the enemies. It was the duty of the surgeon to detect and prevent any danger (Sus. Sootra. Uktasenia Adhyaaya).

MIDWIFERY

Even in the region of midwifery, a high degree of perfection was attained. Ante-natal care was given special importance. Eight kinds of false presentations were described by Susruta (Sus. Chi. Chap. 15, V.5), who in cases of difficult labour advised the use of suitable instruments. Embryotomy and caesarean section were practised. The management of the puerperium and of the new-born

infant, the choice of the wet nurse and tests for finding out the healthy and unhealthy breast-milk were described. The description of a labour room and that of a baby's apartments were given by Susruta in detail.

During this period, general medicine developed in every possible way. Susruta enumerates as many as eleven hundred and twenty diseases. The causation of all the diseases was attributed to the improper correlation of Kaala (time), Artha (perception) and Karma (action) and the consequent, vitiation of Doshaas. The root cause of epidemics was attributed to Adharma (improper conduct) of human beings resulting in pollution of water, air and food and negligence to cultivate the land properly. Hygienic principles, both personal and civic were given the greatest importance in the preservation of the health of the nation. Epidemic diseases were known to spread by direct contact and through contaminated food and drinking water. It has now been established that underground system and public health engineering existed as demonstrated by the excavated city of Mohen-jo-Daro in Sind.

EUGENICS

The principles of eugenics were well understood and certain methods were indicated for getting beautiful, strong and intelligent children.

Thus Aayurveda was developed in all its departments during this period. It was a complete success as a science. It reached a high stage of perfection as an art.

MEDICAL PROFESSION ORGANISED

The medical profession was organised and regulated by a code of medical ethics. Every student was carefully examined before he was initiated into the study of Aayurveda; and was selected only when he was found to satisfy all the physical, cultural and intellectual conditions necessary for a student of medicine. The students were divided into three classes—Uttama; Madhyama and Alpa Buddhiyuta according to their intellectual capacities. Text books were prepared in a simple language and well illustrated so as to suit

all the three classes. The student had to take a solemn oath in the presence of Agni and Rishis as to his good conduct during and after his studentship. It is probable that Hippocrates borrowed and adopted this from the Hindus.

From Susruta, we also learn that a system of medical registration was in vogue. Every student, after completing his medical education and after taking permission from his teacher had to obtain the sanction of the ruler of his country for the practice of surgery. The kings imposed penalties for gross negligence for want of knowledge or skill on the physician.

A code of medical ethics was also formulated, details of which are found in Charaka and Susruta in many places.

The importance of Parishads (conferences) was highly commended. We learn from Charaka and Susruta that Rishis used to congregate now and then and hold discussions on doubtful subjects on the Himalayas. Forests like Chaitraradha were mentioned as places of such congregations. Rishis from all over the country used to attend such congregations. Kaankaayana, whose name was associated with such conferences, was a Bahlika (Turk or Greek). Not only medical men, but also kings and professors of allied sciences (Darsanaas, especially Saankya), used to attend and take part in the discussions. It is believed that Agnivesa and many others incorporated in their text books reports of such conferences.

Classification of medical men as specialists and general practitioners is found in this period. (Refer 'Aayurveda in the Epics')

Kuvalidyaas (quacks), no doubt, existed even at this period. We come across descriptions of uneducated physicians both in Charaka and Susruta Samhitaas, who were condemned in strong terms. Charaka says that they deserve capital punishment at the hands of the king. He describes three classes of physicians, viz those that dress themselves as Vaidyas and deceive people, those that become physicians by mere heredity and those that are really learned.

HOSPITALS IN ANCIENT INDIA

Charaka describes how buildings intended for health resorts for Rasaayana treatment and apartments for the new-born infant should

be constructed and equipped. The mention of musicians and story-tellers for the recreation of the patient is worthy of note. Intelligent and well-trained nurses were employed in these hospitals. (See Sootra Sthana, Chap. 15.)

"The building of the hospital should be strong and not exposed to strong winds. Every part of it should have access to plenty of air, i. e., freely ventilated, spacious enough for walking about freely with ease, not too near any high and huge buildings or obstructions, not exposed to smoke, sun, moisture, or dust, and not exposed to injurious sounds, feelings, forms, tastes and smells." Upakalpaniyam Adhyayam. Charaka, Sootra Sthana Chap 15.

The house should be certified by experts in engineering, should have easy staircases, mortars and pestles, lavatories, bathrooms and kitchen."

"It shall have different compartments fitted with necessary furniture according to definite calculations, shall have the walls painted according to taste and shall have each compartment definitely divided off by suitable screens. It shall have eastern or southern gateways and each apartment shall measure not less than eight 'hastas' (yards) in length and four 'hastas' in breadth and shall be decorated with Toranams (flags and bunting) of an auspicious nature."

The children's apartment (Kumaragam) should be certified to be good by expert engineers and they should be handsome, free from winds but having free breeze, strong and should have separate compartments for water, mortars, urinal, lavatory, bathrooms and kitchen."

ATTENDANTS IN A HOSPITAL

"A body of attendants should be secured who are of good behaviour, who are distinguished for purity and cleanliness of habits, attached to the person for whose service they are engaged, possessed of cleverness and skill, endued with kindness, skilled in every kind of service that a patient may require, clever in bathing or washing a patient, well conversant in rubbing the limbs or raising the patient or assisting him in walking, or moving about, well-skilled in making or cleaning beds, competent to pound drugs, ready, patient and

skilful in waiting upon one that is ailing, never unwilling to do any act that they may be commanded (by the physician or patient) to do." Charaka Sootra Sthana, Chap. 15, Upakalpaniyam Adhyayam.

"Nurses should be loving, pure in body, speech and mind, capable and intelligent."

"Again there should be kept a number of men skilled in vocal and instrumental music, in hymns, encomiums and eulogies, conversant with and skilled in reciting verses, pleasant discourses, narratives, stories and legendary histories, clever in reading the face and understanding what is wanted by the patient, approved and liked by him upon whom they are to wait, fully conversant with all the requirements of time and place and possessed of such politeness as to become agreeable companions." Charaka, Sootra Sthana. Chap. 15 Upakalpaniyam Adhyayam.

UTENSILS AND CLOTHING

"Small vessels or cups, larger vessels for washing the hands and face, water-vessels or Gangalams, small jars or Chembus, dishes, metallic or earthen pans and Kundas, hollow vessels for covering articles, wooden or metallic ladles, mats, shawls made of cotton and wool, vessels for boiling oils and ghee, and churning rods for preparing foamy and cooling medicines." Charaka Chap. 15. Upakalpaniyam Adhyayam.

"There should also be kept coverings for patients made of skins of finest quality, small pieces of cotton and woollen cloth, strings and cords, beds and seats, vessels called Bringaras, a variety of deep spittoons full of water, and flatter vessels for holding spittle and evacuations, all placed ready for use, good beds placed upon bedsteads and overlaid with white sheets and pillows for use when sleep is needed and carpets for lying down or sitting upon."

INSTRUMENTS

"There should be kept articles necessary for the operations of Snehā, Sweda and Abhyanga, Predeha (plasters), Parisheka (fomentations), Anulepa (rubbing), vomiting, purging, application of oily

and other kinds of enemata, errhines, urination and passing of stools well-washed mullers and flat stones that are smooth and rough and neither smooth nor rough and divers kinds of instruments, domestic and surgical, Dhuma Netra (smoking tubes), Vasti Netra (enema tubes), Uttaravastika (vaginal irrigator), brushes and swabs, balances and weights, measuring vessels and baskets." Charaka Sutra, Chap. 15. Upakalpaniyam Adhyayam.

DIET AND MEDICINE

"The mansion should also be stored with an adequate supply of Lava (perdix chinensis), Kapinjala (francoline partridge), Sasa (hare), Matrika (a species of deer fatter towards the abdominal and hinder parts) Urabhra (sheep) and cows, yielding copious milk, of quiet disposition healthy having all calves living and well tended with food and drink and kept in fold that is properly cleaned.

"In a hospital drinks such as Madhu, Seethu, Sura, Sauveeraka Thushodaka, Matreya, Medaka, Dadhi, Dadhimanda, Uthaswith, Dhanyamla and Muthra should be kept ready"—Charaka Sootra Sthana, Chap. 15, Upakalpaniyam Adhyayam, "So also should be kept grains such as Shali Shastika, Mudga, Masha Yava, Tila and Kulutha and fruits such as Badari, Mridweeka, Kasmarya, Parushaka, Abhaya, Amalaka, Vibhithaka and diverse other articles fit for the operations of Sneha and Sweda, and articles that are both emetics and purgatives, those that are astringent (Sangrahaniya), those that increase the appetite (Deepaniya), that promote digestion (pachaniya), soothe the system (Upasaniya), those that destroy Vata, Pitta and Kapha and such other things as may be needed in view of other anticipated evils and other things as in that may conduce to the ease, comfort and happiness of the patient, should similarly be kept ready." (Upakalpaniyam Adhyayam-Charaka).

UNIVERSAL EDUCATION IN MEDICINE

Medicine was studied by all (Varnas). It was studied by Brahmins for preserving their own health and for doing good to all beings, by Kshatriyas for self-protection, by Vaisyas for trade and in general by all for the acquisition of the four Purusharthas.

The attainment of Dharma, Artha, Kaama, and Moksha was and is the chief aim of the Hindus and of every one of their sciences. No wonder then that Hindu anatomy, physiology and all other branches were developed on lines suitable for the attainment of the four Purusharthas. This aim was effected by blending Aayurveda with philosophy and religion. The object of Aayurveda is the successful attainment of the four Purusharthas (Vag. Soo-Ch.I)

Although Aayurveda accepted the principle of self-surrender to God (Bhakti and Prapathi) Aayurveda wanted the maintenance of a sound body as a preliminary for the harmonious attainment of the four Purusharthas.

DEVELOPMENT OF AAYURVEDA IN SOUTH INDIA (AGASTHYA SAMPRADAYA)

While Aathreya and Dhanvantari thus propagated the science of Aayurveda in the north (Aaryavarttha), Agasthya a disciple of Dhanvantari carried it to South India (Dakshinapadha) and founded a new school of medicine after his name. Many identify him with Agasthya of Raamaayana.

It is traditionally believed that Agasthya imparted this science to Pulastiyar, who instructed Therayyar, who in turn taught Uhamuni. According to some, the number of propagators of this school of medicine was forty-eight, while according to another tradition, it was only twenty-four. Others assert that only eighteen were the propagators, who were all Siddhas.

From the treatise of Uhamuni, the following names are found as the propagators of this school. Nandeswar, Agasthya, Matsyamuni, Pidinakkissar, Putasthyar, Pumsunder, Karavurar, Tirumoolar Chattamuni, Ramarishi, Bhojar, Brahma Muni, Sundarar, Vama Devar, Verayyar, Kapilar, Kamalamuni and Konganar.

Further, it seems that in South India, Aayurveda was studied and practised in two different traditions viz, the Veda (northern) and the Thengala (southern). Agasthya, Pulasthyar, Nandeswar wrote their treatises in Sanskrit following the northern tradition, while Therayyar, Bhojar Pulipani etc., wrote in Tamil.

The school of Agasthya was a combination of Vaidika and Tantrika cults. This system of medicine is extensively practised

even today in the Tamil country and also to some extent in the Aandhra, Maharaashtra areas and even in Ceylon, Singapore, Burma and in Tibet.

BAUDHA YUGA

This period extends from 500 B.C. to 600 A.D. which may be said to be brightest of all the periods in the history of Aayurveda, specially in relation to its extensive propagation. Many universities were established, of which Taxila distinguished itself as the greatest centre of medical education. Jeevaka, who made a great name for himself as a great physician and surgeon, belonged to the earliest part of this period. He was physician to the king and the Buddha (6th century B.C.) He is said to have possessed a medical herb by name Bhaishaiyaraaja, which had the specific property of illuminating the internal organs when placed over the body.

Jeevakas's fame spread so far and wide even beyond the borders of India that once in compliance with the request of the royal court of Egypt, he was sent by Emperor Bimbasara for treating Ptolemy, then king of Egypt. Hippocrates, the father of Western medicine (460 B.C.), was a century later than Jeevaka.

ESTABLISHMENT OF FREE HOSPITALS

The Hindus were the first to establish hospitals for the treatment of poor people. During the reign of Chandra Gupta (321 B.C.—296 B.C.) special attention was to the establishment of hospitals and dispensaries and for enforcing rules of sanitation. A register of births and deaths was created. The city council collectively administered the general affairs such as finance, sanitation, water supply etc. The bye-laws of the city imposed fines upon persons defiling public roads and reservoirs, and for allowing dead animals or human corpses to pollute public places. Special routes were prescribed for funeral processions and no corpses was allowed to be buried or cremated except in the public cemeteries or cremation grounds. Special Inams were granted for the village physician

and the village veterinary surgeon*. Rules for the practice of medicine also were framed.

SPREAD OF HINDU MEDICINE TO FOREIGN COUNTRIES

Tradition says that many illustrious men from Greece and other foreign countries visited India and took back with them the Hindn sciences and embodied then in their schools. Alexander the Great is said to have taken with him some Indian physicians (toxicologists) after his India campaign, being attracted by their successful cures of snake bites. The Buddhist monks that were sent out to foreign lands by Asoka preaching Buddhism practised medicine as a part of their humanitarian work. The studied medicine along with philosophy and fortified their spiritual ministry by relieving the suffering of the people.

Further, Asoka having embraced Buddhism, established many dispensaries both for men and beasts. He founded a state pharmacy where medicines were prepared. Medicinal plants were cultivated not only in soils suitable to them, but also in pots. Marginal furrows between any two rows of crops were utilised for the plantation of fragrant plants, medicinal herbs and the like.

Vrukshaayurveda, the science of botany, dealing with the growth, classification of plants and the health, disease and treatment of plants, was studied as a special subject.

Susruta Samhita was redacted by Naagarjuna, who was probably the founder of Mahayaana.

Agnivesa Samhita was redacted by Charaka, who was the court physician of King Kanishka (123 A.D.—150 A.D.) Claudius Galen many have been a contemporary of Charaka. Regarding the identity of Charaka, opinion is divided among scholars.

During the closing years of the period, Dhanvantari one of the nine gems of King Vikramaaditya, composed a book on Materia Medica after his name, Dhanvantari Nighantu being the first of its kind. Amarasingha, a contemporary of Dhanvantari, who belonged

*Artha Sasthra of Kautilya. Ch. I.

to the same court, composed a lexicon by name Amarakosa, in which he gave synonyms of many drugs.

POURANIKA YUGA

This period roughly occupies from 600 A.D. to 1000 A.D. Most of the Puraanas were compiled during this period. But the date of the compilation of the earliest Puraanas cannot be ascertained. There is mention of the word Puraana in Atharva Veda. Thaithareya Aranyaka, Satpadha Brahmana and Chandogya etc.,*

Propagation of the study of Aayurveda was attempted through Puraanas and such propagation formed one of their main themes.

The benefits of establishing free hospitals were eulogized in many of the Puraanas as Nandi, Saura, Skaand, etc., in high terms. No charity was considered greater than that of bestowing health upon the sick. In dispensaries established during these times, not only medicines were given free but also food and even medicated oils for Abhyangam and bath—"Aushadham patya maharam tailabhyanga pratisramam". Some Puraanas not only mention the benefits of establishing such free hospitals, but also actually deal with subjects relating to medicine among which Agni Puraana, Garuda Puraana, Maschya, Puraana, and the like are prominent.

The kings inscribed rules of good conduct for the moral and physical development for the masses on stone pillars and laid them along road-sides and public places. The famous recipe of Siddha Naagaarjuna Varthi for immature cataract was inscribed on one of such stone pillar at Patiliputra (Gadanigraha).

Thus during this period Aayurveda was propagated in every possible way by the Buddhist kings and monks. Siddhas of the Buddhistic school developed Tantrika worship and Yoga like Hindus (Siddhas—Philosophical Background). We have evidence that Siladitya II (583-600 A.D.) established many free hospitals all over his dominion.

* Atharva Vada 11. 7. 24.—Taithareya 2. 11.—Satapadha 13. 43. 13. Chandogya 3. 1. 1. Andhra Vignana Sarvaswam Ist Edition, 3rd Volume.

During the 7th Century Jaijjataacnaarya wrote his commentaries on Charaka and Susruta.

PATRONAGE OF THE CALIPHATE

During the early centuries of the period the Abbasid Caliphs of Bagdad, who reigned from 750 A.D. to 850 A.D., being great patrons of letters and sciences, founded a great library in their capital, Bagdad, and made it an international centre of learning. Of the ten Caliphs who reigned during this century, Harun-al-Rashid (786 A.D.) greatly patronised Hindu culture and had many Aayurvedic and other books translated into Arabic which were afterwards rendered into Latin and Greek. The names of Charaka and Susruta were very familiar to Avicenna and Rhazes, whose texts formed the basis of modern medical science. Under instructions from Haroon-al-Rashid, Manaka, an Indian physician, was said to have translated toxicological portions of Aayurveda into Persian. He was physician to the Caliph.

Ibn Osaiba, an Arabic historian, mentions the names of Manaka and Sale in his 'History of Hindu Physicians'. Sale, he wrote, lived in Iraq, travelled as far as Palestine and spent his last days in Egypt. Evidences go to prove that in Cordova, Hindu physicians were employed as chief physicians in hospitals established by the Western Caliphate.

The special feature of this period was the development of Rasa Sastra (chemistry) in its various departments and even a Darsana by name Rasesvara Darsana was promulgated by the school. Govinda Bhagavat Padaachaarya, the preceptor of Adi Sankara, had written a book on this branch of science by name Rasa Hridaya Tantra.

Bhattaraka Harichandra (931 A.D.), who was court physician of Sehasanka Raja wrote a commentary on Charaka and redacted Kharanadha Sambita'.

INDIA'S CONTRIBUTION TO CHEMICAL KNOWLEDGE

It will not be out of place if we make here a passing reference to India's contribution to chemical knowledge.

The Vedas may be said to be the first book of knowledge of medicine and alchemy in ancient Hindusthan. The term 'Aayushyam' (the securing of long life and health), which occurs in the hymns of the Atharva Veda, was converted later into 'Rasaayana', which is practically the equivalent of alchemy.

ALBERUNI'S EVIDENCE

A flood of light on the exact state of scientific and medical knowledge prevalent in India about the ninth or tenth century A.D. is available from the book on India written by the great Muslim scholar Alberuni, who lived in India from 1017 to 1030 A.D. and mastered Sanskrit and philosophy in the original. This versatile Muslim scholar has left the following account as a true perspective of the chemical knowledge in India about the eleventh century A.D. 'I only heard them (Hindus) speaking of the process of sublimation, of calcination, of alkalis and of the waxing of talc.' (Satwapaatanam)

They have a science similar to alchemy which is quite peculiar to them. They call it Rasaayana. It means an art which is restricted to certain operations, drugs and compounds and medicines, most of which are taken from plants. Its principles restored the health of those who were ill beyond hope and gave back youth to fading old age". A translation of Charaka's book occupied a place in the library of this cultured Arab.

Professor Sachau, who translated and edited Alberuni's work, states as follows:

"What India has contributed reached Bagdad by two different roads. Another influx of Hindu learning took place under Haroon (A.D. 786-808). Induced probably by family traditions, they sent scholars to India, there to study medicine and pharmacology. Besides, they engaged Hindu scholars to come to Bagdad, made them the chief physicians of their hospitals and ordered them to translate from Sanskrit into Arabic, books on medicine, pharmacology, toxicology, philosophy, astrology and other subjects. Still in later centuries, Muslim scholars sometimes travelled for the same purposes"

NAAGAARJUNA

One of the greatest achievements of Hindu medicine is the introduction of metallic preparations, specially those of mercury and iron, in medicine much earlier than in the West. Although Patanjali the commentator on the grammar of Paanini, was also an alchemist of repute, (he was said to have flourished in the second century B.C. and was an authority on the science of iron—Loha-Sastra), the great Buddhist scientist Naagaarjuna, who flourished in the eighth or ninth century A.D. (an earlier date—1st century—is also possible) was the first to use the mercury preparation, Kajjali (black sulphide of mercury) in medicine. One Naagaarjuna lived at Naagaarjuna-konda in Guntur district and died at Sri Sailam Kurnool Dt.). He enjoyed the patronage of the Saatavaahana Andhra kings of the 1st century A.D.

The following statement of Alberuni bears out that a great Buddhist seer Naagaarjuna, who is credited with the discovery of the processes of distillation and calcination, must have lived in the eighth or ninth century A.D.

"A famous representative of this art (alchemy) was Naagaarjuna, a native of the fort Daihek near Somanath. He excelled in it and composed a book which contains the substance of the whole literature on this subject and is very rare. He lived a hundred years before our time."

Hsien Tsang, who stayed in India from 629 A.D. onwards makes the following remarks regarding Naagaarjuna; 'Naagaarjuna Bhodhisatva was well-practised in the art of compounding medicine; by taking a preparation (pill or cake) he nourished the year of life for many hundreds of years so that neither the mind nor appearance decayed.'

It seems, therefore, that Naagaarjuna very likely lived in the seventh century A.D. or even earlier. There appear to be several Naagaarjunas.

In Europe Paracelsus (1491—1541) is credited with the use of a mercury preparation internally as medicine. It is now well known that Paracelsus travelled extensively in the East and might have obtained the information that mercury preparations were in use internally in the oriental countries.

It appears that in Europe even as late as the sixteenth century, the medical men were doubtful about the efficacy of the internal use of mercury and another metallic preparations, whilst the Hindu physicians established firmly their potency as early as the sixth or seventh. That the Hindu physicians successfully used such powerful drugs as arsenic, iron and mercury as internal medicine much earlier than their use in Europe, although the Muslim Hakims under the royal patronage did not utilize them will be evident from quotations from Taleef Shareef and Ainslie's *Lepre Arabum*.

It appears, therefore, from the foregoing pages that the Hindus were the first to make a speciality in the internal use of mercurial remedies in medicine and also they were the first to introduce the metallic preparations of iron and arsenic as internal medicine. Not only the earlier medical books like the *Charaka* and *Susruta Samhitas* but the later *Tantras* have eulogized the efficacy of metallic preparations in internal medicine. In the domain of knowledge regarding the preparation and use of alkalis, the Hindu chemists were much in advance of their European confreres. The same process was known in the eleventh century in Europe.

EQUIPMENT OF A CHEMICAL LABORATORY

The Hindus had devised quite a large number of apparatus, instruments (*Yantraas*) etc., in chemical technology as, for example *Dola Yantram* (for steaming), *Patana Yantram* (for sublimation and distillation), *Valuka Yantram* (sand bath), *Tiryak Patana Yantram* (for distillation per descensum), *Vidyadhara Yantram* (for extracting mercury from cinnabar) and a host of other arrangements.

Regarding the location and equipment of the laboratory and the persons who should work therein, the following is of interest: "The laboratory (*Rasasaala*) is to be created in a region which abounds in medical herbs and wells. It is to be furnished with various apparatus, instruments, etc. The phallus of mercury is to be placed in the east, furnaces to be arranged in the south-east, washing operations in the west and drying in the north-west. The *Koshti* apparatus for the extraction, of essences, the water vessels a pair of bellows and various other instruments are also to be collected as also the thrashing

and pounding mortars, the pestles sieves of various degrees of fineness, earth for the crucibles, charcoal, dried cowdung cakes, retorts made of glass, earth, iron and conch shells, iron pans, etc. Those who are truthful, free from temptations given to the worship of *Devaas* and *Brahmanaas*, self-controlled and used to live upon proper diet and regimen, such are to be engaged in performing chemical operations. Such herbalists as are not deceitful and are well-versed in the knowledge of the drugs and plants and in the language of many countries should be employed." (See *Rasaratna Samuchaya*.)

The Hindus were quite good in their knowledge of metals and their extraction from naturally occurring ores. Gold and silver ornaments were in use in the Vedic period. In ancient India, the soldiers used to put on coats of mail and metallic helmets. Iron, lead and tin are mentioned in the following lines from the *Chaandogya Upanishad* (IV.XVII.8) which show that the Hindus had fairly clear notions about the formation of alloys: As one binds gold by means of *Lavana* (boarax), silver by means of gold, tin by means of silver lead by means of tin and iron by means of lead. The following lines from the Greek writer *Megasthenes* who declared that the Indian were skilled in the arts are of considerable interest. "Underground are numerous veins of all sorts of metals, for they contain much gold and silver, and copper and iron in no small quantity and even tin and other metals, which are employed in making articles of use and ornaments, as well as the implements and accoutrements of war.

EXPERT KNOWLEDGE IN METALLURGY

It has now been recognized by everybody that the Hindu were experts in preparing high class steels. The preparation of the well-known and highly estimated *Damascus* blades filtered from India to Persia through the Arabs. Even now steel of the first quality is obtained from *Chennapatna* in *Mysore State*.

The *Kutub pillar* (iron pillar 24 ft. long and 6½ tons in weight) of *Delhi* which is over 1500 years old, is a source of great admiration to everybody. The great French scientist *H Le Chatelier* in his University lectures at the *Sordonne* always spoke highly about the wonderful quality of steel manufactured in India.

The following lines from Fergusson are of great interest in this connection.

'It has not, however, been yet correctly ascertained what its age really is. Our own conviction is that it belongs to one of the Chandra Rajas of the Gupta dynasty, either subsequently to A. D. 363 or A. D. 400. It opens our eyes to an unsuspected state of affairs to find the Hindus at that age capable of forging a bar of iron longer than any that have been forged even in Europe up to a very late date and not frequently even now.

"It is almost startling to find that, after an exposure to wind and rain for fourteen centuries, it is unruined and the capital and inscription are as clear and as sharp now as when put up fourteen centuries ago".

Sir Robert Hadfield, the great English authority on metallurgy makes the following significant remarks on his topic.

"India it is only within the last century or so that any European iron master could have undertaken to produce such a forging. The only explanation of this wonderful specimen of iron is that it must have been welded together in sections though there are no signs of it on the pillar itself. The pillar is practically pure iron, as will be evident from the following analysis by Sir Robert Hadfield:—

C	Si	S	P	Mn	Fe	Sp	Gr
0.080	0.046	0.006	0.114	Nil	99.720%	7.81	

The huge iron girders at Puri and the ornamental gates at Somnath and the twenty-four feet iron gun at Narwar are excellent samples of Hindu skill in metallurgy.

Regarding the metallurgy of zinc, Sri P. C. Ray writes in his History of Hindu Chemistry as follows:

"The extraction of zinc from the ores can be followed in every detail from the account left to us both in Rasarnava and Rasaratnasamuchaya.

"Rasaka is mentioned in Rasarnava as the mineral which turns copper into gold. We have also in the succeeding couplets a process described for the reduction of the ore. The process is so elaborately given in Rasaratnasamuchaya that it may be quoted almost verbatim in any treatise on modern chemistry it is practically the same as the distillation per descensum. The flame of bluish tint issuing from the mouth of the crucible indicates the

combustion of carbon monoxide, so often observed in metallurgical operations, Rasarnava (about 1,200 A.D.) describes fairly precisely the coloration of flames when metals and their salts are introduced in them. Copper yields a blue flame; that of tin is pigeon-coloured that of lead is pale tinted; that of iron is tawny; that of the 'peacock' ore (Sayaka) is red."

It is a remarkable phenomenon, but rather difficult to explain satisfactorily, that for a period extending over seven hundred years the progress in chemistry and medicine in India was insignificant.

It is well known that science and medicine developed considerably in the universities and hospitals attached to the Buddhist monasteries at Pataliputra, Taxila, Sarnath, Nalanda, Vikramasila and Udayapura between the fifth and the eleventh century A.D. According to Kern (A Manual of Indian Buddhism), during the invasion of India by the Mohammedans in 1200 A.D., the monasteries at Udayapura and Vikramasila were destroyed. The monks were either killed or they fled to other parts e.g. Nepal, South India, and Burma, and thus the progress of science practically came to an end in the land of Indian Aryans as there was no security and settled state of affairs and the people were in constant dread owing to the ravages of repeated invasions.

CHEMISTRY IN MODERN INDIA

In the eighties of the last century, the two Indian pioneers, Sir J.C. Bose and Sir P. C. Ray, made a pilgrimage to Europe to learn scientific methods in the universities of Cambridge and Edinburgh respectively. They returned to our land and for over forty years they initiated and inspired young men to investigate the mysteries of nature according to experimental methods. In the last quarter of a century, notable advances have been made in this country and flourishing schools of chemistry have developed at many centres.

In recent years, the analysis and isolation of active principles of Indian medicinal plants have attracted the attention of several chemists and medical men in this country, viz. Col. Chopra, S. Ghosh (Calcutta) S. Dutt and his pupils, N. N. Ghatak, A. C. Roy and J.B. Lal (Allahabad) B.B. Dey (Madras) P. C. Guha (Bangalore) Sri

Krishna (Dehra Dun) S. Siddique (Delhi), J. N. Ray (Lahore), Manjunath (Bangalore) and others.

Many synthetic organic compounds with important medical applications have been obtained by U. N. Brahmachari and his co-workers and B. N. Ghosh and H. F. Sen (Calcutta).*

THE MAHAMMADEYA YUGA

This period extends from about 1000 A. D. to 1700 A. D. The history of Aayurveda during the Muslim rule is yet to be written. There is no doubt that medical science enjoyed the patronage of the Hindu kings as also of the Muslim rulers. During this period, Rasa Sastra enormously developed and many books on this branch of science were composed and the use of mineral preparations in therapeutics was very prevalent. Extensive use of examination of patients by pulse in the diagnosis of diseases was a special feature of this period.

INFLUENCE OF VERNACULARS

From the year 1000, the influence of Telugu poets was felt in the Andhra country and in fact by the year 1500 almost all the Sanskrit works were translated into Telugu. Similarly throughout Hindusthan, Aayurvedic works existed side by side both in Sanskrit and in the vernaculars.

Aayurveda, according to the Telugu Kavyas has to be studied and the history of Aayurveda in the Andhra country should be brought upto date. Dr. Subbareddi of Vizagapatam has done some work in this direction. He published a paper in the Silver Jubilee number of the Journal of the Telugu Academy.

*For India's Contribution to Chemical Knowledge" we are indebted to Sri N. R. Dhar D. Sc. (London and Paris) F.I.C.I.E.S., for his excellent essay in the Cultural Heritage of India Vol III,

NAMES OF AUTHORS AND THEIR WORKS OF THIS PERIOD

*In the year 1000 A. D. a book on anatomy by name Sareera Padmini was written by Bhaskara Bhatta. In the year 1040 Chakrapani wrote commentaries on Charaka and Susruta and also an independent medical book. During these years Vrinda has composed a book of his own. In the year 1050 Gayadasa wrote Nyaya Chandrika, Nidana and Sareera. Dalhana, a contemporary of Chakrapani, wrote a commentary on Susruta Samhita by name Nibandha Sangraha. We learn from Dalhana's commentary that Brahmadeva had written some commentaries (1089). In 1111 Maheswara wrote two medical works dealing with Nidana and Chikitsa. In 1220 Aruna Datta wrote a commentary on Ashtangahridaya by name Sarvangasundari. In 1260 another commentary of Madhavanidana by name Aatankadarpana was written by Vachaspati.

Regarding the date of the author of Madhavanidana i.e., of Madhavakara, historians differ. Some place him in the 7th century A. D. while others hold him as the brother of Sayanaacharya, the famous commentator on Vedas. As commentaries seem to exist on Madhavanidana as early as the 13th century, beyond doubt, he must have existed in the early centuries. To whatever date the author may belong the popularity and importance of Madhava was well shown from the popular oft-quoted verse:—

*"Nidane Madhava Sreshtatah
Sootra Sthanetu Vagbhatah
Sareera Susrutah Proktah
Charakastu Chikitschake."*

Rasaratnakara, a work dealing almost wholly of mercurial preparations, was probably published in the 14th century. Probably in the same century, Kotturu Basavaraju also wrote 'Basavarajeeyam'

*Prior to this date and on the authority of reliable and available evidence, we can put Didhabala, the well known great commentator of Charaka Samhita hailing from the Land of the Five Rivers, in the 5th or the 6th century A. D.

while Indrakantham Vallabhaachaari wrote his 'Vaidya Chintamani.' These three authors were probably Andhras as their texts are very popular in Andhra Desa and as their original manuscripts are largely available in the Telugu script. They used preparations of mercury, arsenic, opium and several new drugs.

In the year 1420, Sarangadhara wrote a concise medical book called after his name in which both Vaidika as well as Rasa Sampadaaya were adopted. This is an excellent epitome of the previous Aayurvedic literature. Three commentaries exist on this book 1. Dipika by Aadhamalla, 2. Gudarthadepika by Kasirama Pandita and 3. Aayurveda Deepika by Rudrabhatta whose dates are not definitely known.

About the year 1550, Bhavamisra wrote a voluminous compendium by name 'Bhavaprakasa' in which he introduced many foreign drugs that were imported at that time. He freely used mineral preparations that were abundantly in vogue, thus becoming one of the forerunners of the present day chromo-therapy.

Though other branches of medicine did not develop much during this period, Materia Medica developed to the highest extent.

Madanapala, who lived during the early years of this period, wrote a Nighantu after his name. Narahari, a contemporary of Madanapala, wrote another book called Adhidana Chudamani which is also called Raja Nighantu. Some place Narahari in the 7th century A.D. After these authors another by name Shodhala wrote another book on Materia Medica. Chikitsasaram by Gopala Doss was written at this time. He was probably an Andhra. In the year 1627 Moreswara Bhatt wrote a book called Vaidyamrita. All these authors have included in their texts all new and foreign drugs that were imported into India at their time. In the year 1633 Lolambaraju, who also was probably an Andhra, wrote Lolambarajeeyam, otherwise known as Sadvaidya Jeevanam. In 1670 Hastama Suri wrote Vaidya Vallabha. He was a Jain. In 1676 'Yogaratanakara', a very popular compilation dealing with all the Ashtangas, was written by Nayanasekhara. But opinion is divided among scholars regarding the authorship and nativity of the author of 'Yogaratanakara'. As the first manuscript of 'Yogaratanakara' was found in Telugu script, it is probable that whoever may be the author, he should have belonged to the Andhra country.

There was a great interchange of thought between the Hindu and Mohammadan physicians and many Unani books were compiled during the closing years of this period by the Mohammadan physicians who adopted from Aayurvedic books. * Aayurveda was thus patronised by the Muslim rulers.

SOME EDICTS

The following edicts are recorded as belonging to this period:-

1. The edict dated 1067 A. D. by Veerachola Maharajah of Chola Desa gives details of a hospital containing 15 beds for the use of the students of the college attached to the temple of Venkateswara in the village of Tirumakudal in Chingleput District. An account of the working of the hospital, of the grant given to it and the lines on which it was maintained are given in the edict.

2. Another edict at Malakapuram, Guntur District, by Ganapati Deva belonging to 11th century, refers to a grant of 20 acres of land for a maternity hospital and another 20 acres for a general hospital and gives details of the salary paid to the physician, surgeon and attendants and other expenditure incurred on that behalf.

3. Two inscriptions recovered from Srirangam near Trichinopoly are of general interest. One records the establishment by a Hoyasala general of the 13th century A. D. of a dispensary as an annex to the Ranganantha Temple. The other mentions the consecration in the place of an image of Dhanvantari, the Asculapius of the Hindus.

AANGALA YUGA

This period extends from 1700 A. D. upto the year 1947. At the time of the advent of the European nations for trade purposes to India, the science of Aayurveda as well as its practice were greatly patronised by the State and the people. In fact there are evidences of several drugs used in medicines and also of prepared

* Refer History of Aryan Medical Science by Takore Saheb of Gondal,

medicines such as aphrodisiac preparations being exported to Europe along the trade routes. A close study of this subject is necessary.

Early European explorers studied Indian botany and *Materia Medica* with the idea of economic exploration.

Since the aid of the Government was denied to the practitioners of Aayurveda after the firm establishment of British rule throughout India, their progress was, to some extent, retarded. The science, however, was taught in the Gurukulas by the learned professors with their usual devotion to the subject. New literature was also contributed in the shape of Nighantus as mentioned above.

PROGRESS OF AAYURVEDA IN RECENT YEARS *

Reviewing the progress of Aayurveda during recent years it must be said that the results are very disappointing. This period is characterized by the glamour of the student of Aayurveda to imitate the methods of the West without considering whether they are superior to the methods of treatment tested by long and continued use by the orthodox Aayurvedic physicians.

INSTITUTIONS OF AAYURVEDA

The institutions working for the promotion of Aayurveda in this country may be divided into two classes :—

1. Official or Government Institutions :— That is, those which are worked directly by the Government or with the aid of the Government.

2. Non-official or National Institutions.—That is, those which are worked independently of the Government.

SIR PARDEY LUKIS' EULOGISATION

As long ago as 1910, the Imperial Government of India accepted the necessity of encouraging Aayurvedic institutions as a policy

* Adopted from Dr. A. Lakshmipathi's article contributed to the Godavari Pushkaram Souvenir, 1944.

during the days of Lord Hardinge on the recommendation of late Surgeon-General Sir Pardey Lukis, sometime Principal of the Medical College, Calcutta, and later Director-General of the Indian Medical Service, who said thus in the course of one of his public utterances :— ‘I wish to impress upon you most strongly that you should not run away with the idea that everything that is good in the way of medicine is contained within the ringed fence of Allopathy or Western medicine. The longer I remain in India and the more I see of the country and the people, the more convinced I am that many of the empirical methods of treatment adopted by the Vaidyas and Hakims are of the greatest value and there is no doubt whatever that their ancestors knew ages ago many things which are now-a-days being brought forward as new discoveries. For instance, during the last few years, there has been a considerable amount of talk about what is known as depurating, that is to say, the depriving of the system of salt. This arose from certain experiments carried out by Vidal and Javal, as a result of which it is recognized that in all cases of dropsy the greatest benefit can be obtained by restricting your patients to an entirely salt free dietary. There is nothing new in this. This was known thousands of years ago in the East, and any Hakim would have told you long before Vidal or Javal made their experiments that salt is contra-indicated in all dropsical affections.’ He was bold enough to say: ‘Personally if I were ill, I say frankly that I would prefer to be treated by a good Vaid or Hakim rather than by a bad doctor. I resent strongly that spirit of medical trade unionism which leads many modern doctors to stigmatise all Vaidas and Hakims as quacks and charlatans, and I shall always be proud of the fact that I was privileged to have the friendship of two such learned men as the late Nawab Shafa-ud-Dowlah of Fyzabad and Kaviraj Bijay Ratan Sen of Calcutta.’

Several committees were appointed and Aayurveda was accepted as scientific. Schools and colleges were then started but experts in Aayurveda were not produced on account of the syllabus in allopathic subjects being over-loaded in these colleges to the detriment of Aayurveda.

ALL-INDIA AAYURVEDIC CONGRESS

With the renaissance that started along with the national awakening, Aayurveda had its share of progress. The All-India Aayurvedic Conference (Akhila Bhaarata Varsheya Mahaa Sammelan) was founded in the year 1907 by the late Sankaradaaji Saastri Pade and the All-India Aayurveda Vidyaapeet in 1909 with the object of promoting Aayurvedic science and its practitioners. This name was subsequently changed into the All-India Aayurvedic Congress.

LIST OF THE PRESIDENTS OF THE ANNUAL SESSIONS
OF THE ALL-INDIA AAYURVEDIC CONGRESS

No.	Name of the President	Place at which the annual sessions were held	Year
1	Sri Kanwar Saryuprasad Singh Bahadur, Bahraon State, Allahabad.	Nasik	1907
2	Aayurved Nidhi Sri Ganga Dhar Bhatt, Rajvaidya, Jaipur.	Panvel (Kolaba)	1908
3	Mahamahopadhyaya Kaviraj Sri Ganath Sen Saraswati Vidyasagar, M. A., L.M.S., Calcutta.	Allahabad	1911
4	Vaidyaratna Kaviraj Sri Jogindra Nath Sen, M.A., Vidya Bhooshan. Calcutta.	Cawnpore	1912
5	Lieutenant-Colonel K. R. Keertikar, I.M.S., Bombay.	Muttra	1913
6	Aayurvedmartand Sri Pt. Lakshmiram Swami, Aayurvedacharya, Jaipur.	Calcutta	1914
7	Kaviraj Sri Yamini Bhushan Roy, M.A., M.B., Calcutta.	Madras	1915
8	His Highness Maharaj Sri Ram Varma, Cochin.	Poona	1916
9	Vaidyaratna Sri Pt. D. Gopalacharyulu, Madras.	Lahore	1918
10	Kaviraj Sri Umacharan Bhattacharya, Benares.	Delhi	1919

No.	Name of the President	Place at which the annual sessions were held	Year
11	Mahamahopadhyaya Kaviraj Sri Ganath Sen Saraswati Vidyasagar, M.A., L.M.S., Calcutta.	Indore	1920
12	Kaviraj Haranchandra Chakravarti, Rajvaidya, Rajshahi (Bengal)	Bombay	1921
13	Sri Pt. Krishna Shastri Kavade, B. A., Poona.	Rajahmundry	1922
14	Vaidyaratna Kaviraj Sri Jogindra Nath Sen, M.A., Vidya Bushan, Calcutta.	Colombo (Ceylon)	1923
15	Aayurvedmartand Vaidya Sri Yadavji Trikamji Acharya, Bombay.	Haridwar	1925
16	Mahamana Bharatbhushan Sri Pt. Madan Mohan Malaviya, Vice-Chancellor and founder of the Benares Hindu University, Benares.	Jaipur	1926
17	Aayurved Panchanan Sri Pandit Jagannath Prasadji Shukla, Prayag.	Patna	1927
18	Sri Pt. Krishna Shastri Devadhar, Nasik.	Fatehpur (Shekhawati)	1928
19	Captain G. Srinivasa Murty, B.A., B.L., M.B. and C.M., Vaidyaratna, Madras.	Nasik	1929
20	Vaidyaratna Pandit Ram Prasad Sharma, Rajvaidya, Patiala.	Karachi	1930
21	Mahamahopadhyaya Kaviraj Sri Ganath Sen Saraswati Vidyasagar, M. A., L.M.S. Calcutta.	Mysore	1931
22	Aayurvedmartand Vidya Shri Yadavji Trikamji Acharya, Bombay.	Gwalior	1932
23	Sri Dr. A. Lakshmipathi, B.A., M.B. and C. M. Bhishagratna, Madras.	Bikaner	1933
24	Bhishagmani Kaviraj Pratap Singhji, Rasayanacharya, Hindu University, Benares	Shikarpur (Sind)	1934

No.	Name of the President	Place at which the annual sessions were held	Year
25	Vaidya Shastri Pranacharya Shri Narayan Shanker Dev Shanker, Ahmedabad	Benares	1935
26	Vaidyabhushan Shriyut Pt. Shri Govardhan Sharma Chhangani Bhishak-Kesari, Nagpur	Ahmedabad	1936
27	Vaidya-Panchanan Shri Pt. Ganga Dhar Shastri Gune, Ahmednagar	Nagpur	1937
28	Shri Pt. Shiv Sharma Aayurvedacharya, Lahore	Bombay	1938
29	"	Jodhpur	1939
30	Vaidyartna Shri Pt. Vraj Vihariji Chaturvedi, Bankipur (Patna)	Lucknow	1941
31	Rajvaidya Pt. Jivaram Kali Doss Sastri, Gondal (Kathiawad)	Lahore	1942
32	Kaviraj Manidra Kumar Mukhopadhyaya B.A., Aayurveda Sastri, Calcutta	Rajkot (Kathiawad)	1943
33	Rajavaidya Kaviraj Mahikumar Mukhopadhyaya Pranacharya, Haridwar	Vijayawada	1944
34	"	Mahipal (Karnatak)	1945
35	Dr. A. Lakshmipathi, B. A., M. B., C. M. Bhishagratna, Madras	Sarasol (Cawnpore)	1947
	"	Haridwar	1948
36	Kaviraj Hariranjana Majumdar, Bhishagacharya, M. A., Delhi	Baroda	1948
37	Aayurvedamarthanda Vaidya Sri Yadavji Trikamji Acharya, Bombay	Delhi	1950
38	Sri Kaviraj Hariranjana Majumdar, Delhi	Baroda	1951
39	Pandit Siva Sarma, Bombay	Kottakal	1953
40	"	Trivandram	1955
		(May)	
41	Sri Y. Parthasarayana, Pandit	Kurnool	1955
		(December)	
42	Pandit Anantha Tripathi Sarma	Bangalore	1957

GOVERNMENT INSTITUTIONS

In furtherance of their acknowledged policy of encouraging the Aayurvedic science, the Government started or promoted or helped three kinds of institutions. But, it was not a whole-hearted support 'elp as it showed a step-motherly attitude in all these directions.

1. RESEARCH INSTITUTIONS

The object of these institutions was to conduct research in the analysis of indigenous drugs with the object of obtaining the active principles of the drugs and to prepare such medical preparations as could be easily exploited for the benefit of the commercial interests. The research requires very costly laboratories and establishments and it was found to be an up-hill task to achieve any good results without counting upon active support of the practising Aayurvedic physician who possessed the key to the valuable clinical material with him. This method of study did not help in the advancement of the science of Aayurveda in any way.

2. ĀĀYURVEDIC EDUCATIONAL INSTITUTIONS

Educational institutions in India in general are of two kinds.

1. The real Indian method, viz of the individual system i. e. Gurukula system [Tols] is the one in which a *Guru* or teacher undertakes the complete responsibility of the physical, intellectual and social growth of the students admitted by him for education. He provides them with free boarding and lodging and holds responsibility in every way for their behaviour as units responsible for the civilisation of the nation without any expectation of any return from them. The *Guru* is in turn provided by the public with all the necessities of life. This teacher thus provided, lived as a model of "simple living and high thinking". He was the pride of Hindusthan.

Trained under such environments, the students of Aayurveda developed as custodians of national health and missionaries of humanity.

2. The modern method of mass education where all classes of students (intelligent, moderate and indifferent) are classed together and taught by paid teachers in urban surroundings as in the present day colleges and schools.

Aayurvedic colleges and schools were started in all provinces by the Government or with the aid of the Government, but they proved a failure in the matter of advancing the science to Aayurveda as the curriculum of the student was overloaded with Allopathic subjects. They, however, produced a large number of the so-called Aayurvedic practitioners, who are not only not proud of their own science but who are satisfied to occupy a subordinate rank as imitators of the Western medical practitioners.

3. REGISTER OF INDIGENOUS MEDICAL PRACTITIONERS

The Governments of most provinces opened their own Registers of Indian Medical Practitioners to create some restrictions to the practice of the numerous Aayurvedic practitioners who catered to 90 per cent of the population. These Boards of Indigenous Medicine constituted in each province remained powerless or became puppets in the hands of unsympathetic provincial bureaucratic Governments.

INDIAN NATIONAL CONGRESS

The Indian National Congress was naturally bound to encourage the indigenous science, art, industry and trade, namely Aayurveda and passed the following resolution, at its annual session held at Nagpur in 1920.

"This Congress is of opinion that having regard to the wide prevalence and generally accepted utility of the Aayurvedic and Unani systems of medicine in India, earnest & definite efforts should be made by the people of this country to further popularise these systems by establishing schools, colleges and hospitals for instruction and treatment in accordance with the indigenous systems." But as the leaders of the Congress were most of them educated at foreign universities and still looked to the West for inspiration, they

were not only not bold enough (except for a few honourable exceptions) to take any decisive steps for encouraging the Aayurvedic science or the connected industries, but when they came into power in the years 1937—1939, it was very unfortunate that the Aayurvedic portfolio had to be controlled in two major provinces by two full-blown allopathic doctors, who probably presumed that they knew everything about Aayurveda and began to dictate their policies to the detriment of the indigenous systems. Therefore the epoch-making report of the Usman Committee (1921—1923) was considered only fit for the waste paper basket. The Madras Minister declared that the system of Aayurveda was truncated and was unfit for modern use. There was a great public agitation against this. The lady Minister Mrs. Vijaya Lakshmi Pandit of U. P. however took up the cudgel and made an effective speech supporting the claims of Aayurveda in the Legislative Council of the United Provinces. Something tangible whole have resulted and the popular will would have been established in favour of supporting the hoary and yet vigorously living science of Aayurveda, but meanwhile the Congress Ministries collapsed suddenly. Mahaatma Gandhi whose influence was not much felt in the Parliamentary programme was no doubt a well wisher of Aayurveda as he was of everything which helped towards the prosperity of the Indian villager. He was brought up as an admirer of Aayurveda in his childhood. He thoroughly believed in the efficacy of many Aayurvedic herbs and medicines but as regards its scientific basis he said that he maintained an open mind and was ever ready to learn and be convinced when an opportunity was given to him. His own words are: "I like Aayurveda. I shudder to think that Allopathic medicines would be dumped into the villages. We cannot afford it. We do not want them. There is already much that is known and much more can be gained from the laboratory of nature. I say I like Aayurveda. You must love Aayurveda."

"One day, he said, that if I prove to his satisfaction the truth about the fundamental basis of Aayurveda, he would serve Aayurveda whole-heartedly, with as much zeal as he served the cause of truth and non-violence."*

*Extracted from Dr A. Lakshmipathi's interview with Mahaatma Gandhi on 13—12—1939.

ALL-INDIA AAYURVEDA VIDYAPEET

The All-India Aayurveda Mahaamandali is the executive body or the Standing Committee of the All India Aayurvedic Congress. Its influence is felt through its members who are reputed practitioners of Aayurvedic medicine throughout India, and through thousands of other practitioners who possess diplomas obtained by annual examinations held under the control of the All-India Aayurveda Vidyapeet. These examinations are in three grades:—

1. The Acharyaas who possess a high proficiency in Sanskrit.
2. The Visaradas who possess a good working knowledge of Sanskrit
3. The Bhishaks who pass an examination held with vernacular as the medium of instruction.

The Mahaamandal has provincial branches and other affiliated institutions which work more or less autonomously carrying out the aims and objects of the parent body. The Andhra Province in particular has been very active in all efforts for the promotion of Aayurveda and the first Andhra Aayurvedic Conference was held in the year 1917 at Bezwada with the late lamented Vaidyaratna Pandit D. Gopalacharyulu as president. The Mahaamandal as well as the Provincial Mandals maintain Registers of Membership listing Vaidyas with minimum professional qualification of Laghu Thrayi. Thus the medical profession is organised, and its interests are promoted and guided by these unofficial bodies which work without the aid of any Government favour.

PRIVATE AGENCIES

There are many private institutions which encourage Aayurveda by establishing colleges and schools, by conducting pharmacies where medicines are prepared on a large scale for sale and by running free dispensaries where hundreds of patients are treated free of all cost.

Many translations of original Sanskrit and English medical works were published during recent times and some valuable commentaries on the classical text-books of ancient authors were

also published (See Silver Jubilee Number of All-India Aayurveda Mohaamandali and Dasama Vaarshika Sanchika of Andhra Vaidya Mandali).

Although substantial help was denied by the Government, the general majority of population looked to the Aayurvedic system of medicine in all times of need. It is in the soil deep-rooted and is ever ready to burst forth and give relief to the suffering humanity as in times of yore,

THE SPIRIT OF AAYURVEDA*

Mahamahopadhyaya Kaviraj Gananatha Sen of Calcutta says. "The spirit of Aayurveda is the spirit of science and something more. It is the spirit of observation and experimental research, reinforced by the transcendental intuition (*divyajnana*) of the Rishis. This last is no doubt the special characteristic of Aayurveda no parallel of which is to be found in the West.

"Respect and eagerness for the assimilation of truth from whatever source it might come was also the key-note of Aayurveda. Charaka enjoins universal comradeship in our journey towards truth and speaks eloquently about it.

"Amitra schapi dhanyam yasasya maayushyam paushtikam
laukyam (laukikam) abhyupadisato vachah srotavyam
anuviddhaatayam cheti" (Cha. Vim. Ch. 8—16)

"*Aaplaagama* or the authoritative writings of the *Rishis* (seers) were no doubt greatly respected, but the term is defined in the following words which deserve to be written in letters of gold.

"*Aablaagama* means the Veda; but such *Saasthra* as is based on observation and experiment and the deductions of which have been tested as sound by competent judge is also *Aaptaagama*.

"Tatraap taagama sthaavad vedah, yaschaanyopi kaschit
vedaardhaa davi pareetah pareeksha kaih praneetah
sishtaannmato lokaanugraha pravrittah saastravaadah
sachaptaagamah." (Cha. Sootra. Chap. 11—28)

*Extracted from the contribution of Sri Mahamahopadhyaya Kaviraj Ganantha Sen, M.A., L.M.S., Calcutta, to the Cultural Heritage of India—Vol III.

"The development of the special senses and perhaps of the sixth sense, as some scientists of the present day call it, was the means to that noble end. The physician was required to lead a life of austerity, solemn meditation and sacrifice. The physician should with the aid of the bright light of the lamp of knowledge enter the inner-most soul of the patient and he who cannot so enter cannot treat his patients satisfactorily.

*"Jnaana buddhi pradhepena Yo navisati tatwavit(Yogavit)
Aaturasya antaraatmanam na sa rogaanam schikitsati".*

Cha. Vim. Ch. 4-14.

MEDICAL ETHICS IN AAYURVEDA

"The ethical code of Aayurveda is different from the medical ethics of the present day. The following passage of Charaka formulates the ethical code of Aayurveda.

"You should seek the happiness of all beings. Every day, standing or sitting, you should try to heal the sick with your whole heart. You should not demand too much from your patients even to maintain yourself. You must not touch another man's wife even in thought, nor hanker after other's wealth. You should be sober in dress and temperate. You must not commit a sin nor be an abettor of it and you must speak words that are gentle, clean and righteous" and so on.

Sarva praana bhrtaam sarma aassaasitavyam; aharaharu ttishtataa chopavisataa cha. Sarvaatmanaa cha aaturaa-
naam aarogyaaya prayatitayam; Jeevita hetorapi chaatu
rebhyo naabhi drogdhavyam; manasaapi cha para streeyo
naabhi gamaneeyah; tadha sarva meva paraswami; Nibhrita
vessa parichchadena bhavitavyam; Assaun denaapaapena
apeapa sahitena* sslakashana ssukla dharmya ssarmya
dhanya sat ahita mita vachasa. dessa kaala, vichaarinaa
smrtit-mataa. Jnaanottha nopakarana sampatsu nityam
yatna vataa cha.

Cha. Vim. Chap 8-13.

Sahaayenacha--Reading.

"I need hardly add that the ethical code known as medical ethics now is only the rules of conduct enjoined by a trade guild for the protection of a fraternity out to make the most of its profession for secular purposes. The ideal of Aayurveda was very different.

"I appeal to my countrymen to awake to the necessity of the restoration and development of Aayurveda for their own benefit and for the benefit of the country. It is not merely patriotism that should be their spring of action. I do not hesitate to assert that Aayurveda can give many things to the Western world and many modern discoveries are only rediscoveries of ancient truths"

CONCLUSION

The Historical Survey of Aayurveda has many lessons to teach. The first and foremost among them is:

[1] That Aayurveda is the father of all medical sciences on this earth;

[2] That the ideal placed before the medical man is one of charity to others. The physician's own happiness lies in his satisfaction of being helpful to all other living creatures.

"Natmaardham-naapikaamaardham adhabhoota dayaam-prati"

(Cha. Chi. 14-59.)

(3) Even in these days of evergrowing scientific advances, Aayurveda has much to teach the most forward of scientists. Even in the interests of modern sciences, Aayurveda has to be studied critically and from its fountain in sources Sanskrit and from the existing Aayurvedic scholars.

[4] The system of Gurukula teaching, which provided for the proverbial and universal literacy of the ancient Hindus, has to be revived and extended to Aayurvedic students so as to suit modern conditions.

[5] It is the duty of the state to give every opportunity for the development of this national art, science and industry, which is responsible for many of the special features in the civilisation of this country.

[6] All our attempts for improvement should be to supplement Āyurveda but not to supplant it by the introduction of theories which are antagonistic to the basic and fundamental principles of Āyurveda, of remedies, which are daily introduced into the market by booming advertisements of large vested interests and found to be only ephemeral [short-lived].

[7] Āyurveda has lived long enough to withstand many severe tests of modern science and will continue to live and shine brighter by contact with the Western sciences and grow stronger.

(8) Though old, Āyurveda is ever new "*Purānamapi Punarnavam*"—Charaka—Siddhasthana.

AADHUNICA YUGA

Aadhunika Yuga may be said to commence with the attainment of the Independence of India. Both the Central and State Governments recognised the need for encouraging the study of Āyurveda and of research in the Āyurvedic system of treatment in addition to research in drugs used by Āyurveda physicians.

CHOPRA COMMITTEE

A committee called the Chopra Committee constituted by the Central Government suggested one long-term plan and one short term plan. The long-term plan recommended expansion of Āyurvedic Colleges, where synthesis of Āyurveda with modern medicine has to be attempted. The short-term plan which they recommended was to train the existing Village Vaidyas in First Aid, Maternity and Child Welfare and Rural Sanitation for a period of six months and to absorb them in the personnel of the Rural Health Services. They also recommended intensive research in Āyurveda.

ĀYURVEDIC RESEARCH

An Āyurveda Research Institute was started at Jamnagar and a Cancer Research Centre called the Chandramoweeswara Cancer

Research Institute was started with the aid of Central grant at Muktyala, Krishna Dt, Andhra Pradesh. Attempts are also being made to start several Āyurvedic Research Centres all over India.

THE PURPOSE OF ĀYURVEDIC RESEARCH *

Research in Āyurveda may be conducted for two different purposes. One purpose is to test and verify what has already been known to the Āyurvedic physicians, and to make the knowledge so verified, available for incorporation into modern medicine. The other purpose of Āyurvedic research is to prove the fundamental theories, which form the basis of Hindu philosophy and of Āyurveda. The research that is being conducted in India, for the last two or three generations had been, to study the active principles of some of the drugs used successfully by Āyurvedic physicians in their treatment. This kind of research may help modern medicine, but it does not help the science of Āyurveda or its followers.

For example, Punarnava is a common weed (*Thavizhaama*) used by the Āyurvedic physicians, in the treatment of dropsy. One of the synonyms of Punarnava is, *Sopaghni*—that which cures dropsy. Sir R.N. Chopra and his team of workers at Calcutta found out that Punarnava contains Punarnavine, which cures dropsy by increasing the quantity of urine. This knowledge no doubt benefits the non-believer to confirm the value of Punarnava for himself, but to an Āyurvedic physician, who already knows the value of this drug, this research is of no use. It does not enhance his therapeutic skill. Similarly, *Sarpagandha* (*Amalpori*) was known to contain some soothing qualities and it was used in Āyurveda for centuries in certain diseases, such as, irritability, nervousness and insanity. It is now claimed that *Sarpagandha* contains some alkaloids, which have a direct effect on reducing high blood pressure. This is only one of the uses of *Sarpagandha*. Recently, it has been announced that the plant, which is most commonly used in the treatment of tuberculosis by the Āyurvedic physicians, namely, *Vaasa*, (*Aadhathoda Vasika-Aadalodakam*), contains an antibiotic, which does

*Radio Broadcast by Dr. A. LAKSHMIPATHI, B.A., M.B. & C.M. BHISHAGRATNA on 9th July, 1957, from All-India Radio, Trivandrum.

not produce non-resistant bacilli in the human body, while it cures the disease. All this kind of research was good in its own way, because it enhanced the reputation of Aayurveda, as a great repository of valuable drugs.

AAYURVEDIC APPROACH

It is however to be noted that the Aayurvedic physician does not use these drugs in the above diseases on account of their anti-biotic or other properties, now attributed to them by modern scientists, but his approach to the diagnosis and treatment of disease by these drugs is quite different.

*"Jnaana Deepa Pradeepena
Yo Naa Visati Tatva Vid
Aaturasya Antaraatmaanam
Na Sa Rogaans Chikitsati"*

Aayurveda says that a physician, who cannot enter the innermost soul (Antaraatma) of the patient, with the bright lamp of his intellect, cannot treat the patient's disease.

According to Aayurveda, man is not the body, but is an integrated whole, consisting of the body, the Indriyas, mind and Aatma. The influence of Aatma, who is the director of all the actions of the body, sometimes produces most unpredictable results.

Great importance is therefore given in Aayurvedic treatment, for the study and improvement of the constitution and the personality of man. Aayurvedic treatment aims at the development of the patient's natural capacity for immunity against disease. For instance, a piece of teak wood, whether alive or dead, can protect itself against the attack of white ants, fungi and microbes, whereas timbers of inferior kinds are easily liable to their attack. The purpose of Aayurvedic treatment is to create such self-protection in the body, instead of attacking the enemies such as microbes and viruses by the use of powerful drugs, some of which are of doubtful value and which may injure the body while attempting to kill the enemy, which has entered the body or is about to enter.

FUNDAMENTAL THEORIES OF AAYURVEDA

Research in Aayurveda should therefore be directed to find out the truth of the fundamental theories that are responsible for the success of Aayurvedic treatment. These theories are (1) the Panchabhootha theory, (2) the theory of Trigunas (3) the theory of Tridoshas and (4) the theory of Shad Rasas.

THE PANCHABHOOTA THEORY

According to the Panchabhootha theory, the whole universe consists of five states of matter (not three), corresponding to the five Indriyaas—the five sense organs of man.

The five states of matter are Prithvi, Aap, Tejas, Vaayu and Aakaas, which in combination with Aatma make up the living creation. The convertibility of one state of matter into another and the convertibility of matter into energy and of energy into matter were well known to Aayurveda.

THE THEORY OF TRIGUNAS

According to the theory of Trigunas, the whole universe constituted of the three ultimate reals, called Satwa, Rajas, and Tamas, which are responsible, in the mental sphere for the harmonious, emotional and ignorant types in the behaviour of human personality respectively and in the physical sphere, for the evolution of Panchabhootas. In Aayurveda—the science of life—Vaata is predominantly Raajasika, Pitta is predominantly Saatvika, and Kapha is predominantly Taamasika. These exist in all the living organisms including plants, animals and man, in different permutations and combinations.

A man with the predominance of Satwa in his nature is said to possess such qualities as self-realisation (Gnaana), intelligence (Buddhi), wisdom (Medha), self-control (Dhrithi), memory (Smrithi), unattachment (Vairaagya), truthfulness (Satyam), non-violence (Ahimsa), forbearance (Kshama), love (Maithri), freedom from greed (Aparigraha); freedom from hatred (Adweshha), fearlessness, contentment, cleanliness, living faith in God, etc. He is more or

less intuitively gifted with the faculty of right perception (Yadaartha Darsi) and right conduct (Yadaartha Kaari) and therefore, he is competent enough to discern right from wrong and as such, he is considered by others as trustworthy or infallible (Aapta).

A man with a Raajasic mind has the following qualities in him, namely lust, passion, avarice, jealousy, hatred, arrogance, hypocrisy, ferocity, cruelty, impatience, greed, indulgence in sexual pleasures etc., all leading him to foolish and feverish activities.

A man with Taamasic mind has such qualities as ignorance, lack of intelligence, inertia, idleness, stupor, want of faith in God, worry and anxiety and thus, he is more or less dominated by ignorance, indolence and stupidity.

A Yogi who has succeeded in transcending the Trigunas remains steady in mind and is unaffected by any emotion (Sthiraprajna). He has realised Aatma (the self) by direct vision. He is said to be perfectly healthy (Swastha), which literally means "placed in the self"—Swa—Stha. To him, pleasure and pain, gold and stone are the same. In the state of Samaadhi, he is capable of supernormal activities, such as seeing through solid and opaque walls, breaking up of the atomic structure of the atoms and converting one element into another, television, telepathy etc., called Ashta Aiswaryas.

THE TRIDOSHA THEORY

The three Doshaas are Vaata, Pitta and Kapha. They are called the three Dhaatus (nutrients) in health and the three Doshaas (faults) in disease. Generally speaking, Vaata is responsible in the normal state for enthusiasm, inspiration, expiration, voluntary actions like talking and walking, the proper circulation of the supporting elements like chyle, blood, etc., throughout the body; Pitta is responsible for all the bio-chemical changes taking place in the body, which are responsible for vision (as opposed to perception, which is due to Vaata), digestion, heat production, hunger, thirst, softness and suppleness of the body, lustre, cheerfulness and intelligence; and Kapha is responsible for Snehanam (oiliness), smooth working of the joints, general stability of the body build, etc.

If we compare man to an automobile engine which runs on petrol, the sparking system with all its wires and the battery may be compared to the mechanism of Vaayu—the nervous system. Vaayu supplies the bio-motive force—the Kriyaa Sakthi required by the human beings.

The combustion of petrol which supplies the heat may be compared to the action of Pitta, which is responsible for the metabolism in man.

The mechanism of cooling and lubrication may be said to be analogous to that of Kapha.

The Aatma in the human body is in the place of the motor driver.

It is easy for the village Vaidya and for our women in the homes of India to understand the importance of Vaata, Pitta and Kapha.

The equilibrium of the constituents—Vaata, Pitta and Kapha—is indispensable for the proper working of the nervous, digestive and lymphatic systems respectively. Histologically disease may be defined as the morbid interaction between the three Doshaas—the vitiated nutrients (Vaata, Pitta and Kapha)—and the cells and tissues. This is called Dosha Dhaatu Sammoorchanam.

THE SHADRASA THEORY

The theory of Shad Rasaas states that the properties of medicines, articles of diet, and habits of life of the human beings (Oushadha Anna Vihaara) depend upon their physical properties called Gunaas, such as, Guru and Laghu (heavy and light etc.), their tastes called Rasaas such as a Madhura and Amla (sweet and sour, etc.) on their heating and cooling properties called Veerya, their remote action after digestion called Vipaka and their specific action called Prabhaava.

RASAAYANA AND VAAJEEKARANA

Special methods of Aayurvedic treatment such as Rasaayana (rejuvenation) and Vaajeeekarana (the use of the aphrodisiacs) still remain unexplored by modern science.

METHODS OF RESEARCH

The methods of research in Aayurveda may be classified as psychological, pharmacological, bio-chemical, clinical and literary research. These should be carried on in a comprehensive manner by a team of several competent men, well-versed in Aayurveda, with the aid of modern scientists who should be prepared to help Aayurveda with a sympathetic and open mind.

Research in Aayurveda which does not take into account these theories is absolutely unscientific according to Aayurveda.

CENTRAL COUNCIL OF AAYURVEDIC RESEARCH

In order to promote research in Aayurveda on proper lines, it was resolved at a meeting of Aayurvedic experts convened at Bombay, on 22nd June 1957, by the Union Ministry of Planning, that a Central Council of Aayurvedic Research consisting of fifteen Aayurvedic scholars should be constituted, whose function should be to formulate a co-ordinated policy of Aayurvedic research in our country. It was further resolved that a high class journal of Aayurvedic research should be published on behalf of the Research Council, that all unpublished Aayurvedic literature should be collected from our country as well as from other countries, and that an exhaustive Aayurvedic pharmacopoeia and a dictionary of Aayurvedic terminology should be compiled and published.

When this is done, it may be expected that Aayurvedic research will progress on right lines.

COLLEGES OF INTEGRATED MEDICINE—A FAILURE

Government Aayurvedic colleges, where fairly large sums of money were spent, became a failure because they did not turn out experts in Aayurveda. They produced those who are not proud of their knowledge of Aayurveda and who generally used allopathic medicines in their practice. This was due to the mastership of allopathic doctors, who did not allow Aayurveda to progress on its own lines, but over-burdened the curriculum with allopathic subjects.

AAYURVEDIC EXPERT COMMITTEE IN ANDHRA STATE

The Government of Andhra State constituted an Expert Committee on Aayurveda with Dr. A. Lakshmipathi as Chairman to suggest methods for popularisation of Aayurveda. This committee recommended that good knowledge of Sanskrit was necessary for candidates who seek admission into Aayurvedic colleges, that no teacher who is not an expert in Aayurveda should be appointed in an Aayurvedic college, whatever be his qualifications in modern medicine and that not less than 75 percent of the hours should be spent in the study of Aayurvedic subjects. The committee said that the purpose of Aayurvedic colleges was to turn out experts in Aayurveda who will not be ignorant of modern advances and who possess a working knowledge of modern medicine as general practitioners,

THE DAVE COMMITTEE

A committee known as the Dave Committee was also constituted by the Central Government, who also recommended the integrated system of studies, giving more importance to Aayurvedic subjects.

The recommendations of this committee were not accepted by most of the States, who favoured Suddha Aayurveda which meant that Aayurveda alone should be taught in Aayurvedic Colleges.

SAMAGRA AND SUDDHA AAYURVEDA

I consider that Suddha Aayurveda is a misleading term. If Suddha Aayurveda means that the theories which are directly antagonistic to the fundamental theories of Aayurveda should not be taught in the Aayurvedic colleges by allopathic doctors there is some reason for it.

I am of opinion that there should be no bar for the teaching of such portions of modern science and modern medicine as are not directly contradictory to the fundamental theories of Aayurveda with the object of making the students understand the Aayurvedic texts better. Aayurveda should be made Samagra and should incl-

ude the promotion of the knowledge and practice the Ashtan-gas, on upto-date lines. Above all our object should be to turn out experts in Aayurveda, whatever may be the corpus of their knowle-ge of modern medicine.

*I have travelled to the four corners of India and have studied the methods of Aayurvedic education, the question of rural medical relief and the part that Aayurveda plays in that respect in India. Although it is said that 90 p. c. of the people are having the benefits of Aayurvedic treatment, it is also said that the people would prefer Allopathic treatment, if they can get it. We have therefore to re-educate the people and ask them to demand Aayurvedic treatment, because in a democratic system of Government, the State is guided by popular opinion.

For over 40 years, Aayurvedic colleges patronised by the Gove-rnment were turning out so-called Aayurvedic doctors. But unfortuna-tely for Aayurveda, these colleges did not turn out experts in Aayur-veda but they have produced practitioners, most of whom are not proud of their Aayurvedic learning and they have not contributed any substantial literature, which Aayurveda could easily absorb. Most of them brought disrespect to Aayurveda, by freely using allopathic medicines even in cases where suitable Aayurvedic medi-cines are easily available.

Research institutions in India are working on indigenous medicinal plants but their object is to enrich the pharmacopoeia of of modern medicine but not to enrich Aayurveda. This state of things should be remedied.

As a reaction to this, the movement of Suddha Aayurveda was started. But the word Suddha Aayurveda is a misleading term. Suddha Aayurveda should not mean that Aayurveda should not be expanded, according to the changing conditions. It may remain true to its fundamental principles and also absorb whatever is useful in modern science.

If Charakaachaarya is living today, he would have said as he did before :—

*Address delivered by Dr. A. Lakshmipathi at the All Kerala Aayurvedic Convention, Alwaye, Kerala State, on 29-9-1957.

*Amitrasyaapi Dhanyam
Yasasyam, Aayushyam
Srotavyam Anuwidhaatavyam Cha.*

We should no doubt turn out experts in Aayurveda but they should not be ignorant of other sciences.

Susruta says:—*Swatantra Kussalah, Anya Saustagra
Dheshu Abahishkritah,*

As followers of Charaka, Susruta and Vaagbhata, we must agree that Aayurveda is Anantapaaram. It is an endless science of life. That is why it is called Aayurveda. Keeping these fundamental ideas in view, let us aim at Samagra Aayurveda, complete in itself. It may be Suddha also (i e.) flawless or pure. All the Lupta Bhagaas (lost portions) should be filled up and ail the redundant portions should be omitted. Suddha only means purified and uncontaminated. Our failure so far was due to Allopathic doctors teaching Virodhi Saastras (ccutradictory sciences) to stndents of Aayurvedic colleges to the detriment of Aayurveda. If the teachers of Allopathic subject's in Aayurvedic collegess are experts in Aayurveda also or atleast believers in Aadhyaathmika outlook, the question maybe easily solved. We have realised that such teachers are not readily available. We have, therefore, to start post-graduate training centres both for Aayur-vedic experts and for Allopathic doctors, who wish to work in Aayurvedic colleges or in Aayurvedic research.

THE GOAL OF AAYURVEDA IS THE PARAMAAARTHA OF MOKSHA

The harmonious acquisition of the fore Purushaarthas, namely, Dharma Artha, Kaama and Moksha is the purpose of Aayurveda. The Paramaarth of Moksha is the ultimate goal of Aayurveda. Disease and its prevention and cure are only incidental.

In fact, Aayurveda tries to promote the perfect health of every individual by developing self-reliance (Aatma Viswaasam)· self-control(Aatwa Nigraham)and self-sacrifice(Aatma Tyaagam),. The purpose of Aayurveda is to discipline every man, woman and child physically,mentally and spiritually,so that perfect health is the

rule and disease is only an exception. It is only the offenders of the rules of health that should be come victims of disease and so a hospital must be treated like an unwelcome prison for an offender and not like an attractive place for habitation. Any amount of propaganda is necessary for this purpose. Aayurveda alone can do such propaganda.

VYAAYAAM AND MARDANAM FOR POSITIVE HEALTH

The Aayurvedic system of Vyaayaam (physical culture) and Mardanam (massage) help nature to produce immunity against disease. The ideal of Vyaayaam is not to promote savage strength and brute force. Hanumaa, the humble Bhakta of Rama, is our ideal. Vyaayaam should develop character and inculcate the spirit of service and self-control

*Vyaayama khhunna Gaatrasya
Padbhyaam Udvaritasya Cha
Vyaadhao no Pasarpanti
Simham kshundra Mrigaiva*

Just as a lion is not approached by inferior animals, diseases do not approach a person who has his body founded by exercise and rubbed well by the feet of the massagist. Aayurveda attacks the root cause of disease. For instance, the causes of consumption are traced to irregular and unsuitable food, to loss of vital fluids and to physical and mental strain due to greed, hurry and worry.

*Hitaasee Syaath Mitaasee Syaath,
Kaala Bhojee Jitendriyah (Charaka-Nidana)*

Eat what is suitable to you and that in moderation and at regular hours developing self-control [Jitendriyah]. Diabetes is traced to luxurious habits of living and indulgence in rich and sweet foods.

Aasyaa Sukham Swapna Sukham, Dadheeni etc.

New vices, such as cigarette smoking and excessive use of coffee and tea are undermining the health of the people,

To remedy all these there should be a Ministry of Physical Education, charged with the duty of avoiding disease by promoting positive health by self-control. There will then be less work for hospitals and doctors..

LARGE-SCALE MANUFACTURE OF GENUINE AAYURVEDIC MEDICINES

Large-scale manufacture of genuine Aayurvedic medicines by the Governments of the several States and the supply of genuine products at cost price, like water supply and electricity will raise the prestige of Aayurveda. Then the students of Aayurvedic colleges will not be tempted to use Allopathic medicines so freely as they do now.

In conclusion I wish to state that the ideal should be Samagra Siddha Aayurveda (complete and flawless Aayurveda) but not the limited or incomplete Siddha Aayurveda. Although ancient, Aayurveda is ever growing new.

The problem is easily solved by introducing uniformly in all the States of India, the syllabus prescribed by the All-India Aayurveda Vidyapeet. Delhi, which is comprehensive and yet does not exclude the knowing of the modern advances.

INTEGRATION OF AAYURVEDA INTO ALLOPATHY

Integrated teaching of Aayurveda with modern medicine may however be attempted with great advantage in colleges of modern medicine throughout India. No medical practitioner in India should be ignorant of the fundamental theories of Aayurveda and the use of the simple remedies that are available in India in the shape of herbs that grow abundantly in our forests and waste lands. I am giving below an extract of my address on this subject at the conference of Health Ministers held at Vignaana Bhawan, New Delhi on 15th June, 1957.

It is very unfortunate that the medical students in this country should be ignorant of the historical and the philosophical background of the science of Aayurveda, which originated in India

and spread itself as the parent of all the medical knowledge in the world.

Dr. A. Lakshmanaswami Mudaliar, Vice-Chancellor of the Madras University, was advocating for over 10 years that a chair for the teaching of Aayurveda should be established in all the medical colleges in India. Mr. Prakaasam, as the Chief Minister of Madras, offered to give all financial help to the University for this purpose. But the scheme did not materialise so far.

Now, at least after India had attained complete independence, we should take definite steps in this direction, so that the students of our modern medical colleges in India may feel proud of their precious heritage, and may also be more useful to the public. The study of the principles of personal hygiene inculcating self-control, self-denial and self-sacrifice, which contributed largely to the civilisation of India, should form part of this study.

They may devote 25 hours in the first year for the study of the historical and philosophical background of Aayurveda:

The cost of medical treatment in India cannot be reduced as long as we do not utilise the abundant supply of drugs of vegetable origin that now go to waste in several parts of India. The students of all medical colleges in India should be thoroughly conversant with the use of at least one hundred drugs, which are commonly used as domestic medicines.

For the present, it is enough, if they can devote 50 hours in the 2nd and 3rd years for the study of the Indian materia medica and pharmacology of Aayurveda.

The mode of clinical approach and the application of the therapeutic methods and dietary according to Aayurveda are quite different from those of modern medicine. Aayurveda lays great stress upon the study of the minutest details of the personality and individual temperaments of man and treats the person, attempting to eliminate the causes of disease and promoting the natural immunity instead of merely treating every disease by destroying the microbes. This is an art requiring great skill.

Aayurveda is primarily an Aadhyatmika science. It deals comprehensively with Dharma, Kaama and Moksha, which include the social, economical, aesthetic, moral and spiritual basis of the society.

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voted to the study of the clinical approach and the therapeutic methods according to Aayurveda. A study of 125 hours in the whole course is enough to start with. Post-graduate courses may also be started in addition to this.

There are now some text-books in English dealing with these subjects and they may easily be improved by experience. A small standard text book in Sanskrit, which is accepted as an authority throughout India and which is available in all our regional languages called Sarangadhara Samhita, may be prescribed as a text-book for the teaching of the fundamental principles of the practice of Aayurveda.

The Government of India and the States will succeed in obtaining immediate and spectacular results by encouraging the study of this small book by the students and practitioners of modern medicine. Those in Government service, who pass an elementary examination in Aayurveda based on this book, may be given an additional allowance of Rs.25/- per mensem. All this persuasion will at once alter their vision and will soon bridge the gulf that now exists between the practitioners of the two systems, who now consider themselves as rivals.

If we have failed so far in our attempts at integration of modern medicine into Aayurveda, these colleges are not to be ended but they should be mended. Our object shall be to produce in these colleges experts in Aayurveda, who will also have a working knowledge of modern medicine, and in the colleges of modern medicine, we should produce experts in modern medicine who will not be ignorant of Aayurveda. I have placed my ideas before you. It is now in your hands to do what you can.

AROGYA YAATRA ♦

Although some efforts are made for the promotion of Aayurveda on the medical side, no attempts are made to impress upon the people the preventive side according to Aayurveda. The aim of Aayurveda, which literally means the Science of Life,

♦ Talk by Dr. A. LAKSHMIPATHI, President, Andhra Aayurvedic Board, at the All India Radio, Hyderabad, on 29-11-1957,

President of India Dr. Rajendra Prasad said, is to promote a healthy, long, peaceful and beneficial life and not cure disease, which is only incidental.

The utility of Ayurveda is two fold. One is to make a man live a long, happy and beneficial life (Sukhaaya and Hitaayu). Ayurveda disciplines every man, woman and child to live this kind of life. The second is to prevent and cure disease, because it is an obstacle for the enjoyment of life.

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Owing to the foreign rule for over 150 years, the nation has fallen from the high pedestal. Degeneration has set in and we were imitating everything, good and bad, from our British rulers. Fortunately, we have now got political independence and with it the independence of thought and action also. Although the present Governments, both at the Centre and the States appear to patronise Ayurveda, in word, they are unable to show it in action. This is because they are already pledged, by necessity, to support the very costly allopathic institutions, which were handed down to them by the previous rulers as their successors. They have not only to find funds for the items of expenditure previously budgeted for them, but they have also to find funds for the extensions, for which they have already been committed. As regards Ayurveda, the case is different. There is no binding for them to support Ayurveda.

Ayurveda has to be developed at 4 levels in India today.

I. AT THE HIGHEST LEVEL BY THE CENTRE

- (i) By research on the basis of the fundamental principles of Ayurveda at the highest level with the aid of the Central Government which should pay cent per cent of the expenditure.
- (ii) The Centre should help the establishment of live herbaria and museums for the exhibition of specimens of all herbs and drugs of genuine quality and provide a machinery for their proper identification and standardisation on an all-India basis.
- (iii) Catalogues should be issued on behalf of these institutions giving a short description of every article in the herbarium or museum showing the approximate cost of all articles of medicinal value.

II. AT THE STATE LEVEL

- (i) One or two central colleges of Ayurveda should be started, where a basic knowledge of Sanskrit has to be insisted upon and the general standard of education should be that of the intermediate. The admission shall be by an entrance examination to be conducted by the State Government through the agency of the Commissioner for Government Examinations in the State. The minimum age for admission shall be 17. The course shall be 5 years in addition to an internship for hospital training of one year. This shall be a degree course. The final examination shall be by the University to which the colleges are affiliated.
- (ii) These colleges should have facilities for giving post-graduate training both for Allopathic and Ayurvedic graduate of not less than two years. The service of those who undergo such training can be utilised for research work and also to serve as teachers both in Ayurvedic and Allopathic colleges. They should be awarded fellowships and scholarships of the value of

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- (iii) Catalogues should be issued on behalf of these institutions giving a short description of every article in the herbarium or museum showing the approximate cost of all articles of medicinal value.

II. AT THE STATE LEVEL

- (i) One or two central colleges of Aayurveda should be started, where a basic knowledge of Sanskrit has to be insisted upon and the general standard of education should be that of the intermediate. The admission shall be by an entrance examination to be conducted by the State Government through the agency of the Commissioner for Government Examinations in the State. The minimum age for admission shall be 17. The course shall be 5 years in addition to an internment for hospital training of one year. This shall be a degree course. The final examination shall be by the University to which the colleges are affiliated.
- (ii) These colleges should have facilities for giving post-graduate training both for Allopathic and Aayurvedic graduate of not less than two years. The service of those who undergo such training can be utilised for research work and also to serve as teachers both in Aayurvedic and Allopathic colleges. They should be awarded fellowships and scholarships of the value of

salary drawn by them if they are already in service or Rs. 150/-P. M. if he is unemployed. These colleges shall be financed by the Centre at 75 p.c. of non-recurring expenditure and 50p.c. of the recurring expenditure. The rest should be borne by the State Government.

III. AAYURVEDIC COLLEGES AT DISTRICT LEVEL FOR DIPLOMA COURSE.

- (i) Here again, a rudimentary knowledge of Sanskrit should be insisted upon. The general standard for admission should be School Final standard and the admission shall be by an entrance examination to be conducted by the Commissioner for Government Examinations for the State. The age for the admission shall be not less than 12 years. The courses shall be four years with an internment of 1 year for hospital training. These colleges shall turn out the large number of Vaidyas required for general practice. They shall have a working knowledge of modern sciences including the practical aspects of modern medicine suitable for daily use as First Aid, Maternity and Child Welfare and Rural Sanitation. The medium of instruction shall be the regional language aided by text-books in Sanskrit
- (ii) The Gurukula system of education, by apprenticeship to an experienced Vaidya, shall be encouraged by suitable subsidies to such institutions. But the standard of examination for them shall not be less than the diploma standard. There should be facilities for post-graduate courses for these general practitioners in special subjects for those who wish to go up for higher studies.
- (iii) There cannot be for ever two rival systems of medical treatment in this country. All should work on a common platform, although some may specialise in Aayurveda and others in the Allopathic methods of treatment. For this purpose, the gulf that now exists between the two systems should be bridged as quickly as possible. A course of study of at least 125 hours in the

course of 4½ years for the study of Aayurveda in Allopathic medical colleges should be immediately introduced. A system of awarding certain number of prizes ranging from Rs. 100/- to Rs. 500/- should be instituted for those who pass an elementary examination in Aayurveda to be conducted for this purpose by the State Governments through the Commissioner for Government Examinations. The standard for the examination shall be the same as for the Village Vaidyas.

LARGE SUM OF MONEY LAPSING

Large sums of money, that are now earmarked for Rural Health and medical Services on the planning side are lapsing for want of personnel to man even the primary health centres, which are very meagrely distributed in this country, at the rate of one centre to serve a population of 0,000. The remedy for the sad state of affairs is not merely to increase the colleges of modern medicine or the Aayurvedic colleges at high level which turn out men who do not go to the villages, but to train the Village Vaidya, in modern advances and to make him more useful to the people.

The question of rural medical relief in India was side tracked for nearly 100 years because under the British rule, they wanted to train more and more surgeons who would be useful to the Government in times of war. This led to the neglect of Aayurveda and the degeneration of the village Vaidya. Fortunately Aayurveda is deeply rooted in the soil and it only requires the creation of opportunities for its regeneration and rapid growth.

IV. AT THE VILLAGE LEVEL

- (i) The easiest thing that can be done and should be done at once, is to register all Vaidyas who have been in practice for a period of 10 years and over. Most of the Vaidyas practising now in the village, have only their traditional training from their parents or Gurus. This is often one-side. It is, therefore, necessary to have a minimum standard required for a general practitioner.

A Village Vaidya Manual should be published by the Government and Vaidyas below the age of 40 should study the book and pass an examination within three years from the date of their registration. Those who are above the age of 40 may be exempted from this examination, but they may also have facilities for the regular village Vaidya training course of 6 months, which shall include First Aid, Maternity and Child Welfare and Rural Sanitation. To encourage Vaidyas to undergo this training, preference should be given to those who pass this examination in the employment of Vaidyas by the village Panchayats and the payment of honorarium to them according to the services rendered by them to the Panchayats.

- (ii) There is an anarchy, as it were, in the sale of prepared medicines by several dealers, including big pharmacies. There is no standard of purity or dosage. They have to be organised. Advertisements for sale of medicines should be restricted and brought under control.

We are told that as many as 200 hospitals and dispensaries in the rural areas in Andhra Pradesh remain closed for want of qualified medical practitioners. Our educational methods have perverted our mentality so much, that we do not see and realise simple facts that are known to the common man.

- (iii) Reform requires some finance. Although our Governments are ready to provide crores of rupees for the support of the unsuitable and doubtful system of allopathy, to which they are pledged as successors of the British Government, they plead poverty when it comes to a little support for Aayurveda. They, however, show lip-sympathy today and even for that we must be thankful to them. I appeal to the Vaidyas not to look to the Government for promotion of Aayurveda. It is enough that they do not compel the industrial workers in the name of National Health Insurance Schemes to undergo allopathic treatment and to produce certificates from allopathic doctors in case of any illness, even if they undergo Aayurvedic treatment

We claim that even now 80% of the people depend upon Aayurvedic treatment. Then we must also make them contribute whatever they can to support Aayurveda. Let us pay 55% and request the Government to contribute the other half. It is for this purpose that we started the Andhra Aayurvedic Fund (Andhra Aayurveda Nidhi). This fund should be utilised as far as possible in the district or locality in which it is collected and should be earmarked for the purpose intended by the particular donors. Self-reliance shall be our motto and guide.

The days are changing rapidly. Many valuable medicines that were hitherto kept secret by the Vaidyas and that kept up the reputation of Aayurveda as the treasure-house of India's heritage will now be laid bare when the bonafides of the Government in their desire to encourage Aayurveda are proved. One Punjabi gentleman, who is a refugee in Hyderabad, came to me with samples of medicines and the prescription that was handed down to him by his grandfather, and requested me to make it the property of the world. The medicine is made up of a combination of diamond of the male variety with other minerals and herbs. He has given me a record of a dozen cases of cancer said to have been treated successfully by him in and around Hyderabad. He also gave me some statements made by the patients about their cure of cancer. These were cases given up as incurable after treatment by the allopathic methods. I expect that many more secrets will come out in this manner if a genuine effort is made by the Government for research in Aayurveda.

In conclusion, I wish to thank the Press in India, which has been supporting Aayurveda throughout. The work that has so far been done did not produce the desired results, because we have been suffering from an inferiority complex on account of our glamour for modern things, good or bad. We must overcome that, I appeal to the Vaidyas to sink their differences and to be united into one organisation, so that they may have an effective voice in the administration and in creating public opinion.

There is a proverb that a man was lying with a mountain under his head and that he was searching for stones, being unmindful of that fact.

"Konda Talakinda Pettu koni Raallaku Vetukuladinadu"

In India, there is no village without a Vaidya. He is still serving the people to the best of his ability. When there were great wars and when almost all the modern trained doctors were taken away from the country on war duty, this lack of the doctors was not at all felt in the country. There was no report in any of the papers that people were suffering for want of medical aid.

The trump card in the treatment of some obstinate diseases, considered as incurable by the allopathic system, is still in the hands of the orthodox village Vaidya who has never fallen under the influence of modern sciences, and who has no patronage of any kind from the present Government. His approach to the treatment of disease may be said to be a non-violent and constructive approach, when compared with the modern allopathic treatment, which is generally destructive and is a violent attack on the microbe, which has entered the human body.

THE ROLE OF AAYURVEDA ON THE PREVENTIVE SIDE

Our worthy President, Dr. Rajendra Prasad, has been appealing to the allopathic doctors in India to adopt the Aayurvedic methods of health propaganda, which is the correct approach to prevent disease. He thinks that the medical profession should be a self-liquidating profession and that in course of time, all medical practitioners should go round as health visitors to keep the people in healthy condition.

Crores of rupees are now spent both by the Central and State Governments towards expenditure on the health programmes. Most of the money is spent on the salaries of the highly paid health staff. The approaches to every village continue to be very dirty, horrible and insulting to our civilization. They are polluted by faecal matters, and all sorts of rubbish thrown about indiscriminately. It is against all rules of Dharma that we Indians have been taught to practise. A village cleaning campaign cannot be successful unless the sanitary consciousness of the people is aroused and maintained by strict discipline. Books for children have to be re-written.

NATIONAL HEALTH STARTS WITH CLEANING THE TEETH

There are many things that India can teach the other nations. For instance, national health propaganda should begin with cleaning the teeth, as soon as you get up from bed. You may spend crores of rupees for the manufacture of more and more sanitary tooth brushes, but none of them can be equal to the natural twig of neem, which can be made to grow everywhere. This twig of neem properly selected gives not only the soft brush, which cleans the teeth perfectly, without injuring the gums, it has very good antiseptic and other medicinal properties suitable to the constitution of different individuals by its property of bitterness. There are other twigs recommended in Aayurveda which are sweet, astringent and saltish, suitable with persons of different constitutions (Prakriti) classed as Vaata, (nervous), Pitta (bilious or sanguinary) and the Kapha (lymphatic).

HABITS OF LIFE DIFFER ACCORDING TO THE CLIMATE

The routine of daily life is not the same for people living in different countries and climates. For instance, sleeping at day time is considered to be a lazy habit in European countries. But in India *Divaswaatham*—certain amount of sleep in day time—is prescribed in summer as necessary for the promotion of good health.

AAYURVEDIC HEALTH EXPEDITION

Early in 1958 I started a country-wide Aayurvedic health expedition called Arogya Yatra—pilgrimage to health—for the duration of the week-long Pongal season. The chief idea was to work out a cleaning campaign. The chief items in the programme were:

1. To make the people realise the value of cleanliness of a person and of his surroundings;
2. To control disease through development of positive health by self-control and self-reliance and self-denial;

3. To take pledges from individuals and congregations of people to this effect;
4. To take a pledge from the Vaidya to encourage Vyaayaam (Aasanaas), oil-bath, clean habits (Sadvrittam) and clean living (Swastavrittam) in order to promote positive health;
5. To take pledges from people nor to pollute drinking water, to burn or bury rubbish etc;
6. To encourage production of food and avoid wastage of food as a patriotic duty;
7. To encourage games and sports for boys and girls;
8. To honour with a Tamboolam, those who set an example to others in the village;
9. To organise an Arogya Seva Dal of volunteers;
10. To set apart one acre of land in every village as a herb garden.

The Vaidya should form the centre of this movement of Aayurvedic health expedition. There is a Vaidya in every village. He is very influential by virtue of his position as a helper of the people in critical times. This movement does not require much book learning. It only requires practising what we know as good for the people. Most of the rules depend upon common sense. For instance, protecting drinking water from contamination does not require any special study of books, but, if carefully practised it prevents many diseases of digestion and infectious diseases such as dysentery, cholera, malaria and several other diseases. It does not require much learning to be told that we should bathe every day in this climate and that we should keep the skin healthy and clean. 'Abhyangamachareth Nithyam'. These do not cost much money. They only require the determination of people and some leadership.

The movement of Aayurvedic health expedition has not come too soon. India should give a new orientation to the world health propaganda. This movement should be broad-based and it should centre round the village Vaidya. Then only it will reach the masses. This movement does not require much expenditure of money. It only requires determination on the part of the people to have a long, healthy and beneficial life.

VILLAGE VAIDYA MANUAL

about the year 1938 when the Congress took up the reins of Government, there was an attempt to train the village teachers in domestic medicines and to entrust him with a medicine chest for helping the people with the supply of quinine and other remedies for common diseases.

Gandhiji strongly opposed this but his efforts to create a Home and Village Doctor, out of the Congress volunteers did not succeed. He then requested me to prepare a Village Vaidya Manual based on the principles of Aayurveda. In this attempt I produced 12 volumes in English and 15 volumes in Teiugu under the name of Aayurveda Siksha. This had to be done in order to fix up the proper terminology, to suit the level of the Village Vaidya. If the Village Vaidya Manual is ready, our work will be easy. This manual should give the Vaidya not only up-to-date knowledge of Aayurveda including personal and community hygiene but it should also include the fundamental principles of modern medicine, first aid, maternity and child welfare and rural sanitation. I am seriously working at the compilation of the Village Vaidya Manual now with the help of some expert Aayurvedic scholars.

A RE-DECLARATION OF POLICY HAS TO BE MADE

For the last 12 years, I have been moving heaven and earth for utilising the service of the village Vaidya in rural health and medical relief work. A resolution was unanimously passed at the first Health Ministers' conference held at New Delhi on 10th October 1946, that the services of Vaidyas, Hakims masseurs (Samvahaks), Ustads (physieal training experts), Dayees (hereditary midwives) should be utilised in the national health programme after giving them the necessary scientific training and that they should be absorbed into the auxiliary health personnel of the State.

The Chopa Commrttee of which I was a member, recommended a short-term plan for the implementation of the resolution and prescribed a detailed syllabus for the training of the village Vaidyas in first aid, maternity and child welfare and rural sanitation. The old Madras State and the present State of Andhra Pradesh started

classes and trained over 1,000 village Vaidyys, but they are never given an opportunity for rendering health service along with the other staff of the rural areas.

Although the progress has been rather slow, owing to the inelastic nature of our administrative machinery and the glamour of our leaders for things which are foreign, whether they suit our conditions or not, a strong foundation has been laid in Andhra Pradesh for the training of Village Vaidyas.

A redeclaration of policy of the Government of Andhra Pradesh has to be made at Cabinet level stating that the services of the village Vaidyas may be utilised in the rural health programmes in addition to the existing personnel. If this is done there will be great progress in this very important matter of solving the problem of rural medical relief in India at very little cost.

PREVENTION OF DISEASE BY SELF-CONTROL

Instead of helping to promote the incidence of disease by encouraging the cultivation of vicious habits, it is necessary to promote self-control and self-reliance and thereby create immunity against disease. For this purpose, an Arogya Asrama, a health resort-not an Aatunraalayam-with one acre of land for a herb garden, should be established in every village. Our motto should be Promotion of Positive Health, and not expansion of hospitals. A physician trained in Aayurveda will best suit our purpose in the matter of prevention of disease

MY EFFORTS

In this connection I interview the Ministers for Planning and Finance and H. E. the Governor of Andhra Pradesh. They all expressed their agreement with my views and I hope that some substantial result will follow soon. Sri Acharya Vinoba Bhave whom I met at the All-India Sarvodaya Sammelan at Pandharpur, desired that a Health Centre (an Arogya Konda) should be established in every village in the Grama Swaraajya programme with one acre of land for the village herb garden. He wanted a detailed

scheme to be prepared by us. He is ready to have it worked up in Gramdan villages.

The Aayurvedic expedition planned by me in the name of Aarogya Yaatra and conducted by me in Dendulur and Bheemadole Firkas is closely associated with the village Vaidya training at Ellore. The Aarogya Yaatra provides a very good practical training ground for the village Vaidyas. I propose to organise another health expedition either in August in connection with the celebration of the Independence Day or in connection with the Dasara and Deepavali holidays. The idea of Aarogya Yaatra has received high appreciation from Dr. Rajendra Prasad, our worthy President, Sri. D. P. Karmarkar, Union Health Minister, Sri. S.K. Dey, Union Minister of Community Projects, Dr. T. Lakshminarayan, Adviser, Planning, Health Programmes, and Sri Pratapa Sinha, Adviser on Aayurveda to the Union Government. They say that the scheme will be copied all over India when we make a beginning in Andhra Pradesh and show the way.

AAYURVEDA GURUKULAASRAMAM

I have requested Dr. Rajendra Prasad to inaugurate the Aayurveda Gurukulaasrama to be started at Dendulur. He has kindly agreed to consider my request. We should all be united for achievement of our purpose. There are great chances for our success, I am of opinion that much good work can be done at the village level, without any great demand for capital expenditure, with the help of the trained village Vaidya.

CHAPTER VI

STUDY OF AAYURVEDA IN ANCIENT INDIA

Aayurveda as a subject of study marked almost equally with the Vedas in regard to its status as one of the sacred studies essential for achieving the welfare of mankind. Such a study like *Saadhyaya* or Vedic study could only be undertaken by the performance of a regular ceremony expressive of the undertaking upon which the student will be about to enter. Various qualifications, both physical and moral, are required of the student who would seek admission to study Aayurveda. Admission will be denied to the student who lacked these qualifications. Thus the Aayurvedic *Upanayana* lays stress on physical and moral qualifications, on "properly formed bodily organs such as tongue, lips, teeth, eyes, nose and mouth, and on cleanliness, good manners and morals, courage, humility, capacity, intelligence, patience, retentiveness and zeal, purity of body mind and speech and capacity for taking pains."

The ceremony, as usual, was to be performed on an auspicious day. An altar 18 inches square was prepared, on which worship was offered to the Deity, to Braahmana and to the physicians. Next *Sannidh* or wood from four trees, Khadira, Patasa, Devadaani and Bhilva, was soaked in curd, honey, and ghee and offered as *homa* to fire, by utterance of the *Mahaavyaahriti Mantra*—*Om Bhcoh Svaaha Om Bhuvah, Om Svah Svaaha, Om Bhoonbhuvah Svah Svaha*. Then the following deities were invoked: Brahman, Prajapati, the two Asvinis, and Indra; as also the following Rishis, as being associated

CHAPTER VI

THE AAYURVEDIC STUDENT

with the development of Aayurvedic science: Dhanvantari, Bharadvaja, Atreya, and the like.

It is to be noted that though Aayurveda was a Veda, its study was not confined only to the three higher castes or Dvijas (twice-born), such as Brahmana, Kshatriya and Vaisya. According to some authorities, a Sudra also could study Aayurveda, if he was qualified by purity of his lineage and possession of virtues. Thus the study of Aayurveda was open to all the castes.

At the conclusion of this ceremony of Aayurvedic Upanayana, the preceptor who officiates in the ceremony will invoke the Deity Agni as witness, in whose presence, he will ask the pupil to take an oath that he will follow the prescribed injunctions and obligations indicative of the supremely religious character of his mission for the study and practice of Aayurveda.

THE AAYURVEDIC STUDENT

The pupil must abjure lust, anger, greed, inertia, vanity, conceit, envy, harshness, lying, laziness, and disreputable deeds. He must duly cut off his nail and hairs; wear pure silken clothes (as preventing infection), and practice *Brahmacharya* and truthfulness. He must perform his prescribed duties, as the preceptor must perform his. He was also asked to treat, without charging fee and cost of medicine, the following persons: the *Dviija*, *Guru*, pauper, friend, ascetic, saint, orphan, and guest. He must avoid treating, as his patients the hunter, fowler, the degraded and sinful. The principle of these rules is that the physician must himself be possessed of a sound healthy body, observe rules of hygiene and avoid all kind of defilement, infection, and contamination, and be a man of strict morals as having to deal with patients of both sexes and of all sorts and conditions.

A student who was to enter upon this responsible mission of a physician or a medical practitioner had to undergo a period of probation during which he had to prove his mental fitness for the study to which he is formally admitted by his performance of the initial ceremony of *Upanayana*. This period of probation is fixed by Susruta at six months (*Ashtaangv Hridaya*, Sootrasthana, Ch. 2.) When this period of probation is completed, there are imposed upon

the student fresh and exacting obligations to be observed in his life as a student, culminating in those which pertain to the sacred and responsible medical profession, the proper practice of which is so necessary for the well being of all living creatures.

Now, as regards the rules of medical study: The student must study carefully the extant medical texts of established authority and standards. These texts are slowly recited to him by his teacher in parts known as *Padas* (syllables), *Paadas* (one-fourth of a *Sloka* or verse), and *Slokas*. A student at first is to commit these texts to memory as they fall from the lips of the teacher. They rank as *Sruti*, the sacred literature that is heard or comprehended by the sense of hearing, the words that are imputed to him by the teacher. When, the words are thus heard and committed to memory, the student has to engage in the main and difficult task of grasping their meaning. The student who has merely learnt by heart the words of the text without understanding their meaning which they are incapable of expounding (*Prabhaashana*) is "likened to a beast of burden which only undergoes the pain of carrying a load of sandal-wood without enjoying the pleasure of its smell." Such an immature student only undergoes the pain of study without the compensating enjoyment of its fruits.

As regards the pedagogic methods applied to the study of medicine in ancient India, they were completely scientific. They did not believe in splitting up the entire ground of medical knowledge into separate and unrelated sections in the interest of narrow specialization and intensive study within a limited field, forgetting that such separate sections of study have between them many allied topics or points serving as connecting limbs. In medical study, proficiency in one particular subject or branch was not regarded as adequate for sound knowledge. The complete knowledge of medicine as a whole could not, it was believed, be contained within the limbs of only one subject or branch, but was spread over many subjects or branches which helped in the interpretation of each. The meaning of a particular science is not understood in its full implications like the contents of a seed (*Vijabhoota*) and is rendered explicit by the light derived from allied subjects. Therefore, a medical man cannot achieve success unless he is a master of several sciences (*Bahusruta*). (*Sootra Sthana*, Chs. iii and iv.)

THEORY AND PRACTICE OF AAYURVEDA

It is again emphasised that a medical student should acquire a double proficiency in both theory (*Saashtra*) and practice (*Karma*). A physician who is merely a theorist and grounded in the text of his *Sastras* (*Saastrajna*) and not skilled in the practical application of his knowledge, will be at his wit's end at the sight of a patient, like a coward losing his senses in a field of battle (*Mugdha and Kimkartavyavimidha*). The theory and practice of a science are likened to the two wings on which a bird is borne in its upward flight, or to the two wheels of a chariot necessary for its movement.

THE FOUR LIMBS OF TREATMENT

But the success of medical treatment depends not merely on the knowledge and skill of the physician, but also on certain accessory and indispensable factors, among which are mentioned (a) the efficiency of the nurses (*Parichaaraka*); (b) the quality of medicines and (c) the character of the patient. The nurse should be possessed of many virtues. He should be full of tenderness (*Snehayukta*), should be physically strong, should be able to keep up the drooping spirits of the suffering patient (*Vyaathitarakshanam*) and should know how to apply the prescriptions of the physicians (*Vaidyarakva-Krit*). As regards medicines, their quality will depend upon their raw materials or sources from which they are derived, the medicinal plants, which should be grown properly, from which the material of medicine is to be gathered in proper time. The drugs that are made of them should be made palatable in smell, colour and taste and should be administered in proper condition. As regards the patient, he should be patient under suffering and should suffer from a disease that is curable, should be ready to obey the directions of his doctor and should be full of faith in God.

It cannot be too much emphasised that the entire success and efficacy of the Aayurvedic system of treatment ultimately depend upon the quality and correctness of the medicines which are prescribed in the traditional works of Aayurveda and applied in modern times. These must faithfully correspond to those prescriptions and the sources from which they are derived. The various

medicinal plants which are drawn upon for the purpose in the present day must be indentified, from the botanical point of view, with the plants that are described in the Aayurvedic texts. For this purpose, what is most urgently needed and indispensable for the promotion of the Aayurvedic system is the institution of special botanical gardens for the cultivation of medicinal plants yielding herbs, roots, and fruits, which are the direct sources of Aayurvedic drugs and medicines. The advocates of the Aayurvedic system must press upon every State Government the necessity of promoting these special botanical gardens which will abound in these sources from which Aayurvedic medicines may be derived. A notable historical example of such a measure is furnished by Emperor Asoka, who in one of his inscriptions, definitely states that he considered it to be his primary duty throughout his far-flung empire, as also the foreign States, bordering on it (*Prachin Desa*) to institute medical measures for the relief of suffering by proper treatment (*Chikitsa*), of both man and cattle on the basis of the supply of proper medicines from the plantations of the appropriate medicinal plants, suitable for the treatment of both man and animal. Where such plants were not naturally grown on Indian soil, he would have them imported (*Haarapitaani*) from abroad and planted (*Ropaapitaani*) in all places where they did not exist. Similarly, he would import roots (*Moola*) and fruits (*Phala*) and have them planted all over the country (*Sarvata*) as sources of valuable medicines. It is time that free India should recapture the sources of these medical achievements which stand to the credit of India under Asoka, to whom we owe even the inspiring design of our National Flag.*

*The above chapter was contributed by Dr. Radha Kumud Mookerji, M.A. PH. D., D. LITT., F.A.S. B., M.P., to a commemoration volume published as a mark of appreciation of the services of Dr. A. Lakshmipati in the sphere of Aayurvedic theory and practice.

CHAPTER VII

*"Santatyaa Bhojya Dhaatoonaam
Parivrittistu Chakravat.*"*

Charaka Chikitsa 15—21.

TRIDHAATUS AND TRIDOSHAS

The Tridhaatu Siddhaanta, also called the Tridosha Siddhaanta, is a demonstrated truth and an established conclusion of Aayurveda. The so-called humours of the West were no doubt taken from some of the ideas of the Tridhaatu Siddhaanta. The word 'humour' is derived from Sanskrit word *Aama* (see Webster's Dictionary) meaning wetness (compare humid). These old Western ideas were based upon a gross understanding of the Tridhaatus as understood by the Westerners at that time. Their forsaking of their humoral theory now should not lead to the condemnation of the Tridhaatus. Their translations and understanding being perverted should not affect our position in any way. The Aayurvedists have studied the Tridhaatu Siddhaanta scientifically and professionally.

The Tridhaatus are also called Tridoshas. They are called Tridhaatus in the state of equilibrium when they support the body by supplying the necessary nutrition and energy. Any derangement in

*"The circulation of the nutrients goes on eternally like the motion of a wheel."

their condition causes ill-health. In this deranged condition they are called Tridoshaas. But both these words Tridoshaas and Tridhaatus are, however, often used synonymously. We have to understand their meaning according to the context.

THE THIRTEEN DEHA DHAATUS

According to Aayurveda, the constituents of the living human body are thirteen. They are called the thirteen Deha Dhaatus.

I. Three Dhaatus—nutrients:—Vaata, Pitta and Kapha.

II. Seven Dhaatus—tissues:—Rasa—lymph; Rakta blood; Maamsa—muscle; Medas—fat; Asthi—bone; Majja—marrow and Sukra—sperm.

III. Three Malaas—token debris:—Faeces; urine and sweat. These are the excreta i. e., the metabolic wastes that the body has to get rid of.

The living human body consists of only these thirteen and all other things are included in one or other of these thirteen constituents.

This is the most rational and concise method of division. It is a comprehensive description of the human body as a united whole and it represents.—1. the incoming nutrients; 2. the stationary tissues and 3. the outgoing Malas or debris.

BODY, MIND AND SOUL

All living beings possess Chaitanya (Aatma-soul) and Manas in addition to the physical body. Chaitanya alone is responsible for conscious reactions. It is the spirit. It is the intelligent, immaterial and immortal part of man. The physical or material body or the Panchabhootas are derived from Prakriti, which is material, and Chaita is derived from Purusha (the soul). The Manas is the connecting link. Here Manas includes Buddhi—the faculty of judgment. The three Dhaatus are derived by the combination of the Panchabhootas and Chaitanya and are, therefore, associated only with the living body. The soul exists not only in human beings but its manifestation is different according to its embodiment.

THE FOUR STATES OF CONSCIOUSNESS

In fact according to Indian philosophy, this Chaitanya exists in four states viz., Sushupti, Swapna, Jaagrata, and Tureeya.

1. In an inorganic substance like a metal (Nirindriya Dravyaa), Chaitanya (the atomic soul) exists in the Sushupti or sleeping state. Its vesture is called Annamayakosa.

2. In a plant, it exists, as it were in the Swapna or dreaming state. The plants simply eat and live and do not think as animals do. Its vesture is called Praanamayakosa.

3. In the Jaagrata state i. e., in animal life, the Chaitanya is on a higher scale. In man, it is still higher. He knows that he knows. Buddhi is developed. Its vesture is called Manomaya-kosa.

4. In a Yogi, it is in its highest or super-conscious state (Tureeya Avastha). Intuition is developed. The vesture is called Aanandamayakosa.

Thus living and non-living substances are all made of different states of manifestation according to the body or vesture in which the substance is enclosed.

Aayurveda deals not only with the body but also with the relation of the body with the soul.

THE TRIDHAATUS IN THEIR GROSS STATE

I shall deal only with the first group of the Deha-Dhaatus, namely, Vaata, Pitta, and Kapha.

Vaata, Pitta and Kapha, in their gross state, are secretions in the alimentary canal. For purposes of understanding the description given below, we have to take the alimentary canal (Maha Srotas) commencing from the mouth and ending at the anus as one cavity or tube and the whole human frame as the body in which this cavity exists. The alimentary canal, though inside, may be considered to be outside i. e., at the mouth and the anus.

The Tridhaatus, viz., Vaata, Pitta and Kapha, are derived at birth through the mother from her food, which has all the Shadrasaas, six tastes, viz., Madhura (sweet), Amla (acid), Lavana (salt), Tikta (bitter), Katu (pungent), and Kashaaya (astringent). These

Tridhaatus are daily replenished from childhood by the food having the same Shadrasaas.

THE THREE VIPAAKAAS

The alimentary canal is sub-divided into three parts; the uppermost is Kapha Sthaana. The food, which enters the alimentary canal as having Shadrasaas, is digested and is converted into the three Dhaatus by three digestive processes. These three digestive processes are called the three Vipakaas. The six Rasaas* are turned into three Dhaatus by the three Vipakaas. The three Dhaatus in turn feed the Sapta Deaatus and all this process is aided by the different Agnis (bio-chemical processes).

As soon as Kapha is secreted in the mouth and comes into contact with food in the mouth, it converts the starch into sugar and thereby Kapha augments itself and other food having Madhura Rasa. One tola of a biscuit increases to about 3 tolas when chewed in the mouth. What is added to the biscuit is Kapha. The Kapha is augmented by the addition of secretion to that portion of the biscuit which is convertible and is converted into Kapha.

Pitta is that secretion in the alimentary canal which turns all food having Amla Rasa or acid taste into acids (example-fatty acids) and augments itself.

Vaata is that secretion in the alimentary canal which converts into assimilable materials all other food that is convertible into Vaayu.

Thus, the three Dhaatus which are already in the body enter into the alimentary canal as the three secretions, Kapha, Pitta and Vaata respectively, when they are hungry as it were, i. e., when they are in a comparatively reduced state and they augment or replenish themselves when food is placed in the alimentary canal.

Having thus replenished themselves, they feed the alimentary canal.

Āyurveda says that there are thirteen constituents of the body, the three nutrient Dhaatu-, the seven stationary Dhaatus and the

*Rasaas strictly mean Dravyaas or substances having the respective tastes or Rasaas.

three excretory Dhaatus. The first three nutrient Dhaatus are such as can come out of the body into the alimentary canal (in fact, in a way it is outside). They come out into the alimentary canal as secretions ordinarily in order to assimilate food and extraordinarily when some drugs such as emetics and purgatives are administered and also in disease (they come out into the alimentary canal) in order to throw out any foreign material. When they come out to take food, they gather such of the materials from the food as are suitable for assimilation into each of them. Then they augment themselves and enter the body again. Allopathy says that it is the food that is digested. Āyurveda says that it is the Tridhaatus that go out of the body into the alimentary canal to be nourished by the Shadrasaas of the food and that they re-enter the body after being thus replenished during their stay in the alimentary canal.

The same fact can be described in different words. A man takes a pound of milk mixed with an ounce of sugar. We may as well say that he took sugar diluted with milk. Similarly, the three Dhaatus are augmented or diluted at the time of each feeding by the addition of the Anna Rasa or extract of the food.

In this gross state in the alimentary canal, the Tridhaatus are measurable. They occupy a certain amount of space. They have a certain weight. The Kapha is estimated to be 7 Anjalis (about 84 ounces) and Pitta to be 6 Anjalis (about 72 ounces). Vaata has no compact form and so its quantity cannot be easily determined. Thus, these Tridhaatus are Dravyas, substances or matter, but live matter.

Each of the three Dhaatus—Vaata, Pitta and Kapha—although pervading through the whole body, are described as having five divisions or departments, with different seats and functions.

DHAATU	SEAT
KAPHA	
Kledaka	Mouth and stomach (Aamaasaya)
Avalambaka	Thorax
Bodhaka	Mouth
Tarpaka	Head
Sleshaka	Joints
PITTA	
Paachaka	Between Aamaasaya and Pakvaasaya
Ranjaka	Liver and spleen

	DHAATU	SEAT
PITTA		
	Saadhaka	Heart
	Aalochaka	Inside the pupil of the eye—retina
	Bhraajaka	Skin
VAATA		
	Prana	Head, neck and chest (courses downwards)
	Udaana	Chest, neck and upper abdomen (courses upwards)
	Samaana	Umbilical region
	Vyaana	Heart and whole body
	Apaana	Pelvis and below

Anything that has qualities (Gunas) is a Dravya. Vaata, Pitta and Kapha are identified by certain Gunas or qualities and so they are classed as Dravya-matter, living matter, according to this science.

I. The characteristics or Gunas of Vaata are:—

1. Rooksha (dryness); 2. Laghu (lightness); 3. Seetha (cold); 4. Kharah (rough); 5. Sookshma (subtle-invisible); 6. Chalah (motile).

Tathra Rooksho Laghus Seethah

Kharas Sukkshmas Chalc Anilah, (Vagbhata Bk. I Ch. I.)

The taste is astringent and colour light red (Aruna). Vaata is also called Vaayu.

II. The characteristics of Pitta are:—

1. (Sa) Sneha (slight viscosity); 2. Teekshna (activity); 3. Ushna (heat); 4. Laghu (light); 5. Visrum (slightly foul-smelling like blood); 6. Saram (quickly penetrating); 7. Dravam-liquid.

Pitta is of the nature of heat, slightly viscid but quickly penetrating, and of a colour varying between blue in an immature condition and yellow when mature.

Pittham Sasneha Teekshnoshnum

Laghu Visram Saram Dravam.

III. Kapha is also called Sleshma. Its properties are:—

1. Snigdhah (viscid); 2. Seetha (cold); 3. Guruh (heavy); 4. Mandah (slow); 5. Slakshnah (soft); 6. Mrustsnah (slimy); 7. Sthirah (motionless).

The taste is sweet. In immature condition, it is saltish.

Snigdhah Seeto Gurur Mandah

Slekshno Mrustsnah Sthirah Kaphah. (Vaagbhata I. 1-11)

KAVIRAJ JOGINDRANATH SEN'S VIEWS

“The Tridoshaas have two forms, one gross or material and the other subtle (fine). In the subtle state, they are known only by their action. These Tridoshaas are rendered ordinarily into English as wind, bile and phlegm. These renderings have rather helped us to misunderstand and not to understand them well. These three are, in the subtle state, recognised by groups of symptoms, which are perceived in healthy persons as well as in unhealthy persons. We may have given them other names. For example, there is the term X-Ray. What does X mean? It does not mean anything. It is only a name. We might have called it A, B, C, or X, Y, or Z.

“But the names Vaata, Pitta and Kapha have a definite meaning. Vaata is derived from the root Va. The word Bios which means life, is also derived from the same root. (Va—to move, the letter V is changed into B). Pitta is so called because of its association with heat (Tap-to hear; Tap is inverted into Pit), and Sleshma from its property of joining together (Slesh—to cling together.)

“For example, when a person feels his body too light or feels a reeling sensation or pain in a joint, we say that he suffers from Vaayu. When he feels heavy (say heaviness of body or head) these are symptoms of Kapha. When there is a burning sensation in the body and the eyes become yellowish, these are the symptoms of Pitta. Vaayu is said to be light red, Pitta yellowish and Kapha white. They (the subtle Tridoshaas) are not perceptible things. We cannot see them except by their effects. When a particular person gets his body whitish somewhere, or if he feels heaviness, we ascribe it to some thing else, which we call by the name Sleshma. So is the case with Vaayu and Pitta. Though we cannot perceive them directly

by our senses, we infer their existence. We see a person's eyes become yellowish and we call it Pitta-Vridhhi—increase of Pitta; then we give him drugs that act as antidotes to Pitta-Vridhhi and we often find a cure.

"Similar is the case with Vaayu and Kapha. These are not diseases themselves. They are only symptoms of disease conditions. They have helped us in simplifying our diagnosis of diseases. Vaayn, Pitta and Kapha may exist by themselves or in combinations as Vaayu Pitta, Vaayu Kapha or Pitta Kapha or all the three together. These combinations have been divided according to gradations into 63 classes.

"If we are to ascribe a name for every disease and every symptom, we may become tired of these things and there may not be any unity in our treatment or in the choice of our drugs. The Tridosha theory has acquired a great reputation and if the allopathic doctors approach this Tridosha theory with some amount of Bhakti (devotion, care), they will find a culture in it, provided they are open-minded enough to adopt it," (The foregoing is from a speech delivered in Madras in 1924.)

Vaidyaratna Kaviraj Sai Jogindranath Sen of Calcutta, in an address in Colombo on 25-4-1924 described the Tridoshas as follows:

"Vaata is the most important of the three. It is the source of all inspiration, energy, voluntary movements and actions including speech, proper circulation of blood etc., and internal purification of the system.

"Pitta is the source of all internal heat, including digestion, hunger, thirst, intelligence and memory etc.

"Kapha is responsible for the smoothness of the body's general strength, potency and forbearance etc.

"When in this Triad, Vaata is predominant, emaciation, darkness of complexion, desire for heat, tremor, flatulence, constipation, loss of strength and sleeplessness and loss of sense-activity, delirium, giddiness and exhaustion are the result.

"The symptoms of the predominance of Pitta are yellowness of stool, urine, eyes and skin, hunger, thirst, burning sensation and loss of sleep, while those due to the supremacy of Kapha are anorexia, excretion of mucus, want of energy, heaviness and pallor

of the body, low temperature, feebleness of joints, heaviness in breathing, cough and excess of sleep.

"It is evident from these, that the words Vaata, Pitta and Kapha do not mean the ordinary wind, bile and phlegm as was generally supposed. If it is not possible to identify them from the European standpoint, that is because the Western scholars have never considered the human body from our point of view. According to Aayurveda, the aim of all medical treatment is only the restoration or maintenance of the equilibrium of these three Doshas or Dhaatus."

*"Dhaatusaamya Kriyaa Proktaa,
Tantrasyaasya Prayojanam"*

(Charaka I. 1-53)

KAVIRAJ GANANATH SEN'S VIEWS

The following extracts are taken from an unpublished lecture delivered at the Government School of Indian Medicine, Madras, (1931) by Mahamahopadhyaya Kaviraj Sri Gananath Sen M.A., L.M. & S., Calcutta.

"The Tridoshas are not merely groups of symptoms. They represent definite biological processes that take place in a living body. The difference between a living body and a dead body is due to the existence of Tridosha in the living and its absence in the dead. Both the dead and living body are otherwise made of Panchabhootas. Life is defined in Aayurveda by the union of body and soul. We are told that Rooksha and Laghu etc., are the properties of Vaayu. If Vaayu means air, this Vaayu in a room is not always Rooksha, Seeta or Khara. The air can have different properties in different places. We do not find the air in our body circulating as in a room by the turning of the electric fan. This external air cannot satisfy the descriptions attributed to Vaayu in Aayurveda. What then is Vaayu? Good many of you, at least, realise that the Rishis were not mad men. They conceived a higher force.

*"Utsaaha Utchwaasa Niswaasa
Cheshtaa Vegapravartanaah
Samyak Gatyaa Cha Dhaatoonaam
Akshaanaam Paatavenacha."*

(Vaagbhata Ch. 11—1)

“Vaayu has its special functions of creating enthusiasm, of regulating inhalation and exhalation, of supervising the action of speech, mind and body, of the proper direction of one Dhaatu into the next nourishing Dhaatu and of the proper evacuation of all excretory matters. Vaayu has these functions. Vaayu is Tantra Yantra Dharah. Tantra is the human body. Yantra is the machinery. Yantra Dhaarana relates to its actions, Vaayu is the custodian of all the viscera and all their actions. Outside the human body, it is the power that regulates the movements of the sun, the planets and other heavenly bodies. It is Vaayu which makes the earth quiver and which is responsible for the production of gold and other minerals in the bowels of the earth. It is certain that Vaayu is not merely the atmospheric air. It is the Almighty Power.

ACTION OF VAAYU

“The actions of Vaayu in the human body are divided into five headings as: Praana, Apaana, Vyaana, Udaana and Samaana.

“That is to say, Vaayu regulates the different functions in different manners. It induces the different kinds of muscular action. It regulates the function of the mind, regulates the will (Kriya Sakti), feeling (Ichhaa Sakti) and understanding (Jnaana Sakti); it enlivens all the senses; it carries to the proper destination all Indriyaarthas-Shabda, Sparsa, Roopa, Rasa and Gandha. It produces the cohesion of the different systems. When there is a breach, it builds tiny cells to fill up that breach. It joins the skin when an incision is made. I do not propose to state everything in detail. There are some other things higher than nerve force. In the life of the embryo, Vaayu differentiates and supervises the division of cells and tissue formation. All the different viscera and organs are made by the influence of Vaayu and as long as life lasts, Vaayu lasts and regulates every function from the first cell to the well-developed body. Every bit of it is produced in Vaayu. What is Vaayn? Vaayu is the vital force. Nerve forces are produced from will, Vaayu is the master of will.”*

*Mahamahopadhyaya Kaviraj Gananaath Sen was one of the judges at the Tridosha Charcha Parishat held subsequently (1935) at Benares, he changed his opinion and agreed that Vaayu is not a

“*Sakter Dravyaadhishtitvena
Swanantraavastkityabhaavaat
Vaataadeenaam Na Saktitwam
Kintu Dravyatwam Eva*”

ACTION OF PITTA

About Pitta, we find that Aayurvedists have Pitta and Kapha Doshaas in two forms. They say that Kapha and Pitta can be divided into Prasada and Mala. When there is a derangement of these three (Vaata, Pitta and Kapha), you get the manifestations of these in the forms of excretions, which are called Malas. Mala Bhoota Pitta, as we understand from Western physiology, is an excretion that is passed out of the system. We have been taught that bile is essential for digestion.

I saw a medical man having a biliary fistula, which was the result of an opening made by a surgeon. He was in excellent health and was aged 20 to 25 only. His face was white. You will find in this case that the Pitta or bile is excreted out of the body through the fistula in the skin connecting it with the gall bladder. The stools and urine were examined; both were free from bile.

The bile, which is excreted, is not so essential as we are apt to think. It also produces Toxaemia, if it is absorbed into the system. If this liver, after manufacturing this excretion, does not throw it out, one gets jaundice, fever etc. This is Toxaemia. So long as it is excreted into the intestines or outside, the patient fares well. That shows that this is Mala Bhoota Pitta.

There is another Pitta, fine Pitta, which in the fine or Prasaada state, influences the digestive processes. In the spleen and in the liver the Prasaada Bhoota Pitta manufactures Ranjaka Pitta that forms the red colour of the blood. We all know that the red colour of blood is associated with Haemoglobin.

Another function of Pitta is in the retina. This is called Aalochaka Pitta. That forms the photo-chemical substance of the eye.

force, but that it is a Dravya (matter) of which force is a Guna or quality. Vaayu is the material which is responsible for the generation of the vital force. Vaayu is not itself the vital force.—A.L.

The glow of one's complexion is also due to Pitta.

The Kshaya or Vriddhi, the decrease or increase, of any of these Doshaas, are the causes of disease. When Pitta is deranged, the Mala Bootha Pitta or excretory Pitta is also deranged. It exceeds in quantity or is less. Its bio-chemical properties are also altered. This produces the Toxaemia.

ACTION OF KAPHA

Next take Kapha: Kapha is sticky and smooth. When you find Kapha as Prasaada, your tongue remains moist, your mucous surfaces remain moist. The Prasaada Bootha Kapha functions by creating the secretions, the saliva, the synovial fluid and so forth.

What is upset when Kapha is vitiated? Prasaada Bootha Kapha is deranged. There is an excess of secretions and there is catarrh—cold in the nose. At once, we find general heaviness of the body, the Malas begin to excrete profusely and we get evidences of heaviness in the head, stiffness in joints and in all other places. These are due to deranged Kapha.

Whereas Vaayu is always Sookshma—subtle—invisible—the other two have both Stoola (gross-visible) and subtle forms.

The subject is too vast. It will take 20 lectures to cover the whole field.

PHYSICAL PROPERTIES OF TRIDHAATUS TABULATED

The physical properties of Vaayu, Pitta and Kapha are tabulated below:—

	VAAYU	PITTA	KAPHA
General	Dry,	Slightly viscid,	Viscid,
	Expanding,	Flowing,	Motionless,
	Non-sticky,	Non-sticky,	Sticky, slimy,
	Light,	—	Heavy,
	Cold,	Hot in action	Cold (in
	(in action)	and in touch)	action and in touch)
	Penetrative,	Active,	Inert.

	VAAYU	PITTA	KAPHA
	Rough, Rajas [Predominating]	— Sattwa (Predominating)	Soft Tamas (Predominating).
Taste	Astringent.	Bitter.	Sweet.
Smell	—	Of raw meat.	—
Colour	Light-Red (Aruna)	Red, yellow etc., except white and light red.	White.
Normal quantity	—	5 Anjalis (60 ozs.)	6 Anjalis (72 ozs.)

(Charaka Saareera 7—20)

THE CIRCULATION OF TRIDHAATUS

Modern physiologists attach great importance to the circulation of blood. Although Aayurvedists knew about the circulation of blood, they considered that the circulation of Rasadhaatu (lymph) was more important, because Rasadhaatu is the immediate vehicle of Tridhaatus which represent all the nutrients required by the body. Rasadhaatu starts with the lacteals loaded with Tridhaatus from alimentary canal and entering the heart through the thoracic duct, it acquires the red colour when it comes in contact with Ranjaka Pitta derived from the liver and the spleen and is turned into blood. After nourishing all the successive Dhaatus, the Rasadhaatu is finally converted into Ojas. It is the Gjas that in fact is responsible for all the vitality, strength, lustre and the very existence of life in the body. This cycle of circulation of nutrients goes on continuously like the motion of a wheel.

"P rivrittisthu Chakravat."

(Charaka VI. 15. 21.)

These nutrients travel in the arteries as far as the capillaries go and then they ooze out into subcutaneous or other tissues, the capillaries.

According to Aayurveda, the heart is the Sthaana, seat, of Rasa also.

"Tasya (Rasasya) Cha Hridayam Sthaanam"

(Sus. I. 14—8.)

From the heart, the Rasa-Rakta mixture enters the Dhamanīs (here blood vessels) and travels in all directions. This continuously circulating throughout the body (Kritsnam Sareeram), it does the function of Tarpana (providing everything, that is necessary for the tissues), Vardhana (making them grow), Dhaarana (supporting them) and Yaapana (making the body to continue its existence). Susruta says (Soo. Ch. 14) that it does all this for reasons that we do not know (Adrishta hetukena). Why the Rasadhaatu does all this is inexplicable. That is its nature—Swabhaava.

When these three Dhaatus flow freely without any obstruction and when all the Agnis, Dhaatus, Malas, Indriyaas and mind are fed properly and when they do their work properly, the condition is defined as health (Swasta).

But when the Doshas are deranged and an obstruction is caused to their free movement, disease commences just as rain is precipitated from the clouds when there is any obstruction to their movements and when conditions favourable for the formation of the drops of rain are satisfied.

"Kupitaanaam Hi Doshaanaam Sareereparidhaavataam

Yatra Sangah Swa Vaigunyaad Vyaadhih Stathropa Jaayate"

(Sus. Soo. Ch. 24, V. 10—Charaka Chikitsa 15—36—37)

The Tridhaatus being the feeders of Rasadhaatu and all the other Dhaatus, they have even more extensive circulation than the Rasadhaatu. They (Tridhaatus) start from within the alimentary canal—Mahaasrotas—and after feeding themselves there to their satisfaction (Paripushta Tridhaatu), they enter the lymphatic circulation through the lacteals leading from the alimentary canal and empty themselves into the thoracic duct. They get mixed up with the blood in the heart and circulate through the arteries, capillaries, lymphatics, cells, tissues, and organ get diminished (undergo Soshaanam) and go back to the alimentary canal to be replenished or fed again.

Tridhaatus together may be described as in-going organised protoplasmic nutrient material in the circulation. They may be said to be free protoplasm or plasma, the liquid part of blood and lymph. It is the simplest form of organized matter in the vegetable and animal body, out of which the several tissues are formed and also nourished. It is the fluid in which the cells are made also suspended.

This nutrient material feeds the several stationary tissues and cells, such as corpuscles in the blood, connective tissue cells, muscle cells, fat cells, bone cells, marrow cells, nerve cells and germ cells thus forming the higher and higher structures.

There is no living tissue or any space in the body which is not penetrated by the Tridhaatus.

"Vaata Pitta Slekshmaanaam Punah,

Sarva Sareera Charaanaam,

Sarvaani Srotaamsi Ayana Bhootani.

(Charaka-Vimana V—5)

"Vaata, Pitta and Kapha move through all the ducts in the body and they are present in every part of the body."

Thus the circulation of the Tridhaatus is more extensive than circulation of lymph and blood.

GENERAL REMARKS

The difference between the Western system of medicine and the Aayurvedic system is primarily in the Tridosha Siddhaanta. The three Doshaas have got a significance of their own.

1. To the man in the street;

2. To the village physician, who does not know the subtle theories of Aayurveda, but who only knows the formulae and the methods of applying them;

3. To the Aayurvedic scholar and scientist, who knows the real significance of the fundamentals of Aayurveda, their origin—how they are derived from the five states of matter, technically termed Panchabhootaas and Chaitanya—and every detail in the structure (Dravya), properties (Guna), and action (Karma), of time, food and

drugs etc., who can explain scientifically every phenomenon by the application of Tridosha Siddhaanta;

4. And to the Yogi, who knows theoretically and practically the actual processes of life and who can control them at his will by his supernormal powers.

THE VILLAGE PHYSICIAN

As far as the practice of medicine is concerned, the words Vaata, Pitta and Kapha stand out in clinical work as milestones or sign posts on a high road, directing the physician towards easy diagnosis of the disease and in the appropriate administration of medicines suitable to the diseased conditions. The village physician, the moment he finds definite symptoms, such as acute pain, shivering, dryness of tongue or skin or any inability of action, or loss of function or fits, would put it down to be a derangement of the Vaata type. If there is a burning sensation all over and simultaneously, green or yellowish colour, biliousness etc. or high fever he knows that it is of the Pitta type. If, on the contrary, one finds heaviness, dullness and low fever, excess of secretion in the mouth and loss of appetite, they are clear symptoms of the Kapha type. But this is not all. The diseases are to be studied as such also according to the part of the body or organ affected, the age, the season, the strength of the patient and of the disease, the condition of digestion, the temperament and habits and the causes of the disease in all their details in different stages, (Vaagbhata. I. 12-67).

The three Doshas clinically are something like three big pigeon holes in the mail-sorting office, where the letters with different destinations are sorted out into three or four pigeon holes according as they belong to the north, south, east and west. The symptoms of diseases, which are multifarious, are synthesised into three groups and their combinations, which are easily recognised by the trained Aayurvedic physician.

Just as in a political election, one could know the party to which the candidate belonged by his flag & one could at once understand the fundamentals of the policy for which one was voting without knowing exactly the qualifications of the candidate himself, the

physician, who can recognise the delicate conditions of Vaata, Pitta and Kapha, does not easily go wrong even in case he fails to know the exact name of the disease. He has only to apply the treatment opposite to the symptoms exhibited by the Doshas. The best anti-Vaata treatment is an enema. The best anti-Pitta treatment is a purgative. The best anti-Kapha treatment is an emetic. Not to speak of all the drugs of the pharmacopoeia, out of all the vehicles of medicines castor oil is best for Vaayu, Ghee for Pitta and honey for Kapha. Then again, a hot or warm binder which gives rest to the part is best for Vaata because Vaata has properties of motion and is cold in action. For Pitta, a cold sponge, a loose covering and cool Ghee as an external application with dry substances like heated sand and hard and dry massage may be safely indicated.

THE LINE OF TREATMENT

When Pitta is in excess, it is like a house on fire: quick cooling treatment is indicated, such as hydro-therapy with ice and wet pack. When Kapha is in excess it is like a field suffering from inundation; drainage and drying up by heat and dry air are indicated. Pitta and Kapha are said to be by themselves ineffective (lame) until they are influenced by Vaayu—the sole leader. When Vaayu joins Pitta, the Pitta symptoms are aggravated and when Vaayu joins Kapha, the Kapha symptoms are exaggerated. When Vaayu is in excess there is over-activity of the tissues. Convulsions and affections of the mind such as hysteria are attributed to the excited Vaayu. When Vaayu is less, the symptoms will be such as are found in loss of function, paralysis and neurasthenia.

These examples are given only to serve as illustrations of the types into which certain symptoms may be grouped, but, as has been said above, the subject has to be studied in great detail if one has to understand all the delicate processes of life.

RELATION BETWEEN BODY, MIND AND SOUL

The master of the car (Radhika), called Jeevaatma, travels on his pilgrimage called Jeevayaatra, through the streets called the objects of the world, in his car [Sareeram] to which five horses,

called the Indriyaas, are harnessed. These Indriyaas are held by the reins called Manas (mind), which is controlled by the driver (Saaradhi) called Buddhi—the faculty of judgment.

*“Āatmaagum Saaradhim Viddhi
Sareeram Radhamevatu
Buddhimtu Saaradhim Viddhi
Manah Pragrahameva Cha”*

(Kathopanishad Ist and 3rd Vali—3)

The real scope of Āyurveda is to teach the Dharma so as to help the man to be happy himself and also be beneficial to others (Sukham and Hitam). Literally, Āyurveda is the science of life—Āyuh-life, and Vid—to know; that is to know (1) the duration of life, (2) the conditions which are conducive to the happiness or misery in life (here and hereafter) and to its longer or shorter duration, (3) the utility of the individual to the society (Hita) or otherwise (Ahita) and also (4) the methods for securing this healthy, happy, long and useful life.

Āyurveda is also a science of philosophy which can free man not only from the sufferings of old age and disease but those caused by the bondage of the mind due to his Karma—his own actions and his inheritance.

*Hithaa Hitham Sukham Dukkham,
Āyuh Tasya Hithaahitham,
Maanam Cha Thachha Yatrokham,
Āyurvedah Ssa Uchyate.*

The three Dhaatus considered severally have to be understood in their physical, bio-chemical, physiological, pathological and clinical aspects.

PHYSICAL ASPECTS

Physically, the Tridhaatus represent the three states of matter, the solids, liquids and gases roughly corresponding to Kapha, Pitta and Vaata respectively. Kapha is predominantly solid, Pitta predomi-

nantly liquid and Vaata predominantly gaseous (an aeriform fluid). It has the property of expanding in all directions. Agni and Akasha states, which are not recognised as yet as subtle states of matter by the West, are also predominant in Pitta and Vaata respectively.

All states of matter are relative. Liquid water becomes solid when converted into ice; and it becomes a gas when converted into vapour. Pitta is a liquid with a tendency to continue to be a liquid. Kapha may also be considered to be a liquid, but with a tendency to solidify, and Vaata may also be considered to be a fluid with a tendency to further liquify or evaporate and it, therefore, ordinarily exists in the gaseous state. A fluid is anything that flows. At this rate, air is a fluid; electricity that flows along a wire is also a fluid; so also, Vaata in the human body is a fluid of a peculiar type. The different states of matter are difficult for us to comprehend in their subtle conditions even with the aid of the most delicate instruments. A Yogi, however, knows even the most subtle of things and he can also alter one state of matter into another by virtue of his supernatural powers. The control of Vaayu is, therefore, easy for a Yogi.

BIO-CHEMICAL ASPECTS

Bio-chemically, the three Doshaas surround and penetrate the cells and tissues in the form of nutrients and supply them with all food consisting of the solids, liquids and gas in the shape of substances ingested by the cells and tissues.

The three Doshaas together may be taken as constituting the plasma or free protoplasm which feeds all cells that go to form the tissues.

The three Dhaatus have each its own constitution in the gross and the subtle state.

Kapha in the mouth is a secretion which is alkaline into which is assimilated most of the starch or other food having a predominantly Madhura (sweet) and Lavana (salt) taste. It is semi-solid and is full of mucus. Its primary source is in the Aamasaya (i. e.) in the mouth and the upper portion of the stomach.

Pitta in the gross state is acid. It is semi-liquid—more liquid than solid. It is a secretion into which most of the food having

Amla (acid) taste is assimilated. Its primary seat is the portion of the lower stomach and duodenum i. e. Pachyamaanaasaya.

Vaayu in the gross state in the alimentary canal is also a secretion which has a bitter taste and is a volatile fluid into which most of the food having Ratu (pungent) and Tikta (bitter) and Kashaaya (astringent) taste is assimilated. Its primary seat is Pakvaasaya (intestines).

PHYSIOLOGICAL ASPECTS

The Tridoshaas, Vaata, Pitta, and Kapha, function as responsible primarily for all the activities of the nervous, circulatory and lymphatic systems respectively of the body.

PSYCHOLOGICAL ASPECTS

The Vaata, Pitta, and Kapha, form the physical counterparts of all the conditions that are responsible for the different mental states. The Tridoshaas are derived from the Trigunas as everything in this world. There is an increase of Pitta in wrath or anger. There is an increase of Vaata in grief or worry. There is an increase of Kapha in depression or happiness. The state of equilibrium of Satva, Rajas and Tamas is responsible for a state of perfect health of the Indriyaas. Normal Vaata is responsible for enthusiasm. Normal Pitta is responsible for intellect and memory. Normal Kapha is responsible for strength and courage.

PATHOLOGICAL ASPECTS

Pathologically, Vaata, Pitta and Kapha become harmful when they are deranged (Kupita). They cause functional derangement first and organic changes (Dhaatu Paaka) when the derangement continues. Vaata, Pitta and Kapha in the form of normal excretions constitute part of the Malas or debris. Flatus is the Mala of Vaata. Bile is the Mala of Pitta and phlegm is the Mala of Kapha. Besides these three token Malas there are Malas of the Sapta Dhaatus. The Malas in the Prasaada state, however, promote health and in only

a deranged state they cause disease. In the Prasaada state, they help to support the body and to that extent they are also called Dhaatus.

CLINICAL ASPECTS

Clinically, the three Doshaas represent certain groups of symptoms, which serve as sign posts indicating the types of diseases and the different stages in the same type. Such grouping or classification helps the physician greatly in treatment. There is no pain without derangement of Vaata. There is no burning sensation or Paaka—inflammation—without derangement of Pitta and there is no pus without derangement of Kapha. Medically, derangement of Kapha indicates heaviness and increase of Kledam (moisture). Predominance of nervous symptoms denotes Vaata type. Hyperpyrexia and acuteness of symptoms indicate Pitta type and a mild onset generally indicates Kapha type. The cerebral type is generally due to derangement of Vaata, the abdominal type is generally due to Pitta derangement. But if fever is also present, it indicates the derangement of both Pitta and Kapha and when the nervous symptoms are also present, it is of a mixed or Sannipaata type, in which there is a serious derangement of all the three Doshaas. These divisions go up to 63 sub-types by combinations of the three Doshaas. The physician has to decide which is primary and which secondary.

The importance of knowing the chief seats of Vaata, Pitta and Kapha and their subordinate seats lies in its utility in treatment.

When Vaata is deranged anywhere in the body, it is necessary to devote our special attention to the treatment of Vaata at its principal seat in the intestines (Pakvaasaya) by suitable enemas. Just as a tree dies when its root is cut off, so also Vaata in other places will be subdued, when its virulence is attacked at its root (Moola) in the pelvic area.

Similarly, when Pitta is deranged anywhere, we direct our attention to its chief seat in the Pachyamaanaasaya and treat it with purgatives so that the other Pittas, fed by the main source, may be starved out. So also in Kapha derangement we have to attack it at its source in the Kaphasthaana, i. e., in the Aamaasaya. Of course,

treatment of the subordinate Doshaas in their place is also indicated according to the various stages of the disease.

A CONSTANT ATTEMPT AT SYNTHESIS

A true scientist would wait and think whether a study of the Tridhoshaas can give any special point of view peculiar to the science of Aayurveda, which would help in the diagnosis and treatment of diseases. In Aayurveda, there is a constant attempt at synthesis of the various items of knowledge so as to bring all conditions of health and disease into the three-fold formula of Vaata, Pitta, and Kapha. In the Western science, the tendency is to greater and greater analysis, whereby the number of diseases are multiplied with every new discovery. According to Aayurveda, every new discovery helps us only to understand the Tridosha Siddhaanta better by discovering unity in diversity. In fact, ill-health is caused by derangement of the three Doshaas and health is restored by bringing the deranged three Doshaas to their normal conditions.

I would ask you to study Aayurveda not because it is your own pet science which has descended to you from your ancestors, but because it is superior to the Western medical science in many respects. Though Aayurveda is primarily a material science, it is at the same time, the best guide to philosophical studies. Culturally, Aayurveda holds a high place amongst the world's sciences.

CHAPTER VIII

AAYURVEDA, AN AADHYAATMIKA SCIENCE

Aadhyaatmika science means the science of the soul. Science means systematised knowledge. Veda means knowledge. Aayurveda means the knowledge of the science of life. The scope of Aayurveda is very vast. Modern sciences deal with inert life—Panchabhootas. Aatma—the soul—cannot be studied by the instruments of science. The limitation of the scientific methods has now been very well recognised. I have said that Aayurveda is primarily the science of the soul. It must have a high place as one of Darsanaas.

ADWAITA PHILOSOPHY—THE GREATEST DISCOVERY OF INDIA

The greatest discovery of India is the Adwaita philosophy. "Aatmaavai Sarva Bhootaami." According to the Indian sciences, there is a progressive evolution of the soul from the Bhautika state to the Aadhyaatmika state. There is an process of spiritual progression going on a vast scale in the universe. The evolution is from minerals to plants, from plants to animals, from animals to man and from man to a wise man—a Yogi—and from a Yogi to God.

*"Mama Vatmaam Vartante
Manushyaah Paartha Sarwasah."* (Geeta 3.23)

In this progression there is the waxing in spirit and the waning in matter. We see only the middle of the progression. The beginning and the end of creation are beyond the reach of the human intellect.

*"Avyaktaadmi Bhootaani
Vyakta Madhyaami Bharata
Avyakta Nidhanaanyeva
Tatrakaa Paridevanaa."* (Geeta 2-28)

At the beginning of creation, all was Brahman—the ultimate reality. The successive stages of evolution are (1) matter (Annam), (2) life (Praanam), (3) consciousness (Manam), (4) self-consciousness (Vignaanam) and (5) universal consciousness (Aanandam). These are called the Panchakosaas in Vedaanta. Life starts from the lowest category of matter (Prakriti) and reaches the highest category of spirit (Purusha). At one end of the ladder, we have pure matter, in which the spirit is dormant, and at the other end we have pure spirit, in which the matter is dormant.

FOUR STATES OF CONSCIOUSNESS

Aayurveda recognises a gradual evolution of the four states of consciousness namely:—

- (1) Sushupti—sleeping state — Tamoguna Pradhaana—in inorganic substances such as minerals. They do not feed themselves.
- (2) Swapna—dream state—in plants. They feed ordinarily on non-living matter.
- (3) Jaagrata—in animals, the consciousness is in a higher plane, Rajoguna Pradhaana, and in man it is still higher.
- (4) Tureeya—Satwaguna Pradhaana—super-conscious state in the Yogi. In this state, Aatma is Vibhu—all pervading.

Charaka says:—

*"Vibhutwam Aatma Eva
Yasmat Sarvagaato Mahaan
Manasascha Samaadhaanaat
Pasyati Aatma Tiraskritam."* (Sareera 1. 18)

In the four stages described above, the first stage relates to the body (Sareera), the second stage to the senses (Indriyas), the third stage to the mind (Satwa or Manas) and the fourth stage to the Aatma (soul).

PROGRESSIVE STAGES IN THE EVOLUTION OF LIFE

The progressive stages in the evolution of life are very well described in the following lines from Manu 1-90 and Mahaa-bhaarata-Udyoga 5—1.

*"Bhootaanaam Praaninah Sreehtah
Praaninaam Budhi Jeevinah
Budhi Matsu Karaah Sreehtah
Nareshu Brahmanaah Smrutaah
Brahmaneshucha Vidwansaah
Vidwathsu Krita Buddhayah
Kritabuddhishu Kartaarah
Kartrushu Brahma Vedinah."*

Of all things in creation, things which are fixed to one place but have life (Staavara-plants) are higher than things without life (Jadha Bhootas). Of the living beings, those who live with a greater degree of intelligence (animals) are superior. Of those which are endowed with intellect, man is superior. Of men, Brahmana—the highly developed teacher—is superior. Of Brahmanaas, learned Brahmins are superior. Of the learned Brahmins, those who desire action are superior, as a contrast to those who desire inaction or renunciation. Those who actually engage themselves in action are superior to those who have attained self-realisation higher, because they perform action without the expectation or the hope of fruit.

THE STUDIES OF DETAILS SHOULD PROMOTE DETACHMENT

The greater the details one knows about the body, the more shall be one's power to detach oneself from the body.

*Sarvaavayavasah Bhishak
Tada Jnaana Mimittena
Sa Mohena Na Yujyate
Nirdosha Nishpruhah Saantah
Prasaamyati Apunarbhavah."*

(Charaka-Sareera-7. 29-30)

The intense study of the minute anatomy of the body is considered to be one of the ways of obtaining peace of mind and freedom from attachment to it (Moksha). A student of Aayurveda should carefully notice this viewpoint. This is different from the viewpoint of a surgeon who has to deal with only the material side of the divisions of the body for the success of his art.

The Aayurveda physician looks at the human body in a synthetic way. It does not matter very much for him how many bones, nerves, arteries of veins there are in the body. For him the human body consists of three things—the ingoing nutrients, the stationary tissues and the outgoing debris. The nutrients, which are Antarmukha, feed the tissues and the debris, which are the Vahirmukha, and have to be eliminated. The equilibrium of these is health and their ill-balance is disease.

Charaka has, however, calculated the terminals of blood vessels and nerves as 2,90,956. *Ekona Trimsat Satasahasraani Navacha Satsaani shat pancha Shatkaani Siraa Dhamaneenaani Anusah Pravi-bhaja Maanaanaam Mukhuagra Parimaanaam.* Taking the human body as composed of cells (Paramanu Bhedeni), its constituent parts may be regarded as incalculable.

*"Sareera Avayavaastu
Paramaanu Bhedeni
Apari Samkhyeya Bhavanti."*

The students of the modern medical colleges now spend about 1500 hours for the study of the bones, the elevations and depressions on its surface, which most of them forget before they complete their final year course. To the student of Aayurveda, this minute study is mainly intended to convince him that the body is not his and that

the Aatma cannot be seen without developing the Divya Chakshu through Yoga. Even 1000 hours spent by an Aayurvedic student in the theoretical and practical applications of the principles of Vedaanta is not a waste. It will make him a better physician more useful to himself and to the society.

MAN AND THE UNIVERSE

Man is a microcosm Pindaanda). He and the universe (Brahmanda) have a similar structure. He is like a spark in the divine fire. "Tat Twam Asi.—Thou art that."

*"Purushoyam Loko Sammitah
Yavanta Hi Loke
Bhaavavisheshah
Taavaantaani Purushe
Yaavantaah Purushe
Taavanta Loke. etc.*

Purusha is like unto the universe. All the particulars which occur in the universe occur also in the human body. Both are constituted of Panchabhootaas and Aatma. His progressive spiritual evolution made man what he is today,

Just as there are incalculable minute cells in the structure of the human body, there are also incalculable units in the structure of the universe.

*Aparisamkhyeyaah
Lokaavayava Visheshah
Purushaavapave Visheshah Api
Aparisamkhyeyaah.',*

—(Charaka Samhita S. 4)

The macracosm has also its body, Indriyaas, mind and soul. The body (Virrat) of the macracosm (i. e.) nature, is also made of Panchabhootaas. Its Indriyaas are Viswadevaas in the shape of powerful instruments of nature. Judgement in determining the natural laws of procreation and destruction is due to its Manas. Its soul is Brahman. (Charaka-Vimaana—Ch. 5—7)

He who sees the universe in himself and himself in the universe attains self-realisation. For he who sees the whole universe in himself realises that he is himself responsible for his acts of pleasure and pain and non else. He, thus and in consequence, acquires the knowledge of the self (Tatvagnaana) and gets Moksha (emancipation)

PRAVRITTI MAARGA AND NIVRITTI MAARGA

Human beings are classified in four Varnaas and four Aasramaas for the harmonious attainment of the four Purushaarthas according to the Guna and Karma. They have prescribed for each stage certain rules of conduct in order to help to achieve further progress. This is to avoid strife in progress. All the experiences in human births go to accumulate more and more knowledge, which help to achieve further progress, by successive stages. There are two stages for the attainment of the progress of the soul. There are called Pravritti Maarga and Nivritti Maarga. The Pravritti Maarga should gradually ripen into Nivritti Maarga.

PRAVRITTI MAARGA

The Pravritti Maarga or the path of action is the root cause of pain and also of all consequences due to the bondage of mind with the daily activities of the bodily life. From Pravritti Maarga arise (1) Ahankaara (pride); (2) Sanga (attachment); (3) Samsaya (uncertainty or doubt); (4) Abhisamplava (acceptance of wrong beliefs); (5) Abhyavapaata (downfall due to individual affections such as mineness—Manatva); (9) Vipratyaya (perverse state of mind); (7) Avishesha (inability to distinguish Hita—good—from Ahita—bad); and (8) Anupaaya meaningless ceremonials.

(1) AHANKAARA. The egoism that I am possessed of such parentage and caste, such beauty of form, such wealth, such intelligence; such character, such learning, such rank or pedigree, such energy and influence is called Ahankaara or pride,

(2) SANGHA: All those acts that relate to the mind, word body and that increase attachment and are not for emancipation are known as Sangha or attachment.

(3) SAMSAYA: That frame of mind in which one is uncertain about the existence of the fruits of action of the emancipation of the soul or self, or a future state of life and such others are called Samsaya or uncertainty.

(4) ABHISAMPLAVA: "In all conditions I am the same, or unchanged. It is I who am the Creator. I am the cause of the development of my own nature. I am only a conglomeration of the body, senses, understanding and memory." An acceptance of such wrong beliefs is called Abhisamplava

(5) ABHYAVAPAATA: The apprehension that mother, father brother, wife, children, kinsmen, friends, servants and others are mine and that I am theirs is Abhyavapaata or downfall due to individual affections or mineness.

(6) VIPRATYAYA: Vipratyaya is that state of mind in which one's notions are reversed of what should be done, what is beneficial and what is not beneficial and with is not good and auspicious.

(7) AVISHESHA: Inability to distinguish between couples of opposites viz. learned and ignorant, normal and abnormal, and inclination and abstention as really different from each other, is Avishesha.

(8) ANUPAAYA: Sacrifices, fasts, pouring libations in sacrificial fire, ablutions in the morning, evening and at noon, dedications of articles to the deity, invoking of Gods, performance of sacrifices on one's own account, officiation at sacrifices of others, mendicancy, giving up of life by entering into water or fire and such other acts are called Anupaaya. These are incapable of leading to emancipation.

Thus the person, following the Pravritti Maarga—worldly way—becomes divested of true understanding and is subjected to several obstacles to emancipation such as pride etc., and is often led astray among paths that do not lead to the desirable goal. He happens to live like the Nivaasa Vriksha—the habitation tree—in which birds nestle or roost almost night and day, as the abode of all sorrows, which are really due to the faults of the mind and body.

Thus obliged by Ahankaara and other faults, to wander (through repeated births), one fails to transcend Pravritti Maarga. Verily Pravritti is the root of all sins.

NIVRITTI MAARGA

Nivritti is renunciation of the fruit of all acts which are the cause of bondage of the mind. It is the foremost of all ends or aspirations of life. It is Param, the highest. It is Saanti (tranquillity) itself. It is Akshayam (undecaying). It is Brahma. It is Moksha (emancipation).

*"Nivritti Rapavargah Tatparam Prasaantham
tat; Tadakshayam; tad-Brahma; sa Moksha."*

The mind, when withdrawn into the soul, blazes forth like the pure steady crystal and the cheerful flame of a lamp kept within the lamp-holder.

Compare the above with the following verse from the Bhagavat Geeta.

*"Ahankaaram Balam Darbam
Kaamam Krodham Parigraham
Vimuchhya Nirmamah Saanto
Brahma Bhaayaaya Kalpate." (Geeta 18—53)*

"Who having given up egoism, power, pride, desire and anger and all the bonds, becomes peaceful or selfless, such a man is fit to become Brahmabhoota—merged in God."

*"Samah Sarveshu Bhooteshu
Lobhate Paraam. (Geeta 18—54)*

"Becoming equal to all beings, he acquires intense devotion towards me."

BRAHMAJNAANA-ESSENTIAL TO THE STUDY OF AAYURVEDA

Self, the invisible lord of the body, cannot be detected except by the psychic eye—(i.e.) mental eye—Divya Drishti of the mind. He who has observed the internal mechanism of the human body and is

well read in the works bearing on these subjects and has thus expelled all his doubts from his mind is alone qualified in the science of Aayurveda and has a rightful claim to practice the art of healing.

*"Sareere Chiva saastre drishtaardhah syaad
Visaaradah Drishta Sridaabhyaam
Sandehamavapya Hyaacharet kriyaah."*

Su. Sa. Ch. 5. 50—51.)

LIBERATION—MOKSHA

*"Sahoonam Janmanaam Ante
Jnaanavaam Maam Prapasyate." (Geeta Ch. 7—19)*

Thus liberation (Moksha) means fully identifying oneself with Brahman, losing all identity as an individual soul.

There are various ways of attaining progress towards salvation. They may mainly be classified under three heads:

(1) Karma Yoga, which means steadily carrying on one's duty without expectation of return;

(2) Bhakti Yoga which means self-surrender to God and obtaining Moksha through faith and devotion; and

(3) Jnaana Yoga, which means acquisition of true knowledge of the self through Abhyaasa (constant practice and Vairagya (detachment), through freedom from bondage of the mind, by concentration on the soul—Dhyaana and Samaadhi.

All other methods may be included in these three. Charaka considers that the ultimate purpose of life is to attain salvation and he recommended Jnaana Yoga, which he described as the Nivritti Maarga, as the best means of securing Moksha in this life.

Aayurveda is essentially a spiritual science. Aayurveda has been studied not only by Vaidyaas but also by every wise man as a Darsana for his own spiritual elevation. The knowledge of the causation, prevention and cure of disease is more to avoid disease, which hampers the performance of Tapas (austerities), Upavaasa (living a Godly life), Adhyayana (study), Brahmacharya (living in God), Vrataas (rituals) and the very life itself (Aayus).

*"Vighna Bhootaa
Yadaa Ragaah
Praadurbhootah Sareerinaam
Tapopavaasa Adhyayana
Brahmacharya Vrataayushaam."*

The commentator here says that Upavaasa is not fasting, but it is an observance of the good qualities like Satya and Ahimsa, by giving up Kaama and Krodha and by living a life of devotion to God.

*"Upaawrittasaya Paapebhyah
Sahavaaso Gunehi Yah
Upavaasah Sa Vighneyah
Na Sareerasya Soshanam."*

Upavasati Iti Upavaasah; Upa-sameepe-Vasati—taking shelter in God.

THE VEDAS AND PRASTAANATRAYI

The source of our spiritual inspiration is the Vedas. There are many portions in the Vedas which have a hidden meaning and, therefore, many commentaries have become necessary. Aayurveda, as an Upaveda of the Vedas may be taken as one of the commentaries of the Vedas. The three authorities are called the Prastanatrasyi. The Upanishads, the Brahma Sootraas and the Bhagavat Geeta are accepted as the supreme authorities of all saastraas. Aayurveda closely follows these. Similar statements as contained in them and even identical sentences are found throughout Aayurvedic texts.

For instance, compare the following quotation from the Bhagavat Geeta, Susruta and Charaka.

*"Iswarah Sarvabhootaanaam
Hriddise Arjuna Tishtati
Brahmayan Sarvabhootaam
Yantraaroodhaami Maayayaa."* (Geeta 18—67.)

"Oh! Arjuna, the Iswara seated in the hearts of all beings activates all beings by his illusions as though they were put in a machine." The seat of Iswara or Paramaatma is considered to be in the heart of man-

Susruta also says that the Chetana lies in the heart.

"Hridayam Chetanua Staanam"

Charaka also says that the seat of Aatma is in the heart.

*"Aatmaacha Sangunah Chetah
Chintyaamcha Hridi Sameritam."* (Sutra 30—4.)

Sri Ramana Maharishi of Tiruvannamalai, who is an expert in the Aadhyaatmika sciences, says that the seat of Aatma is in the Hridaya. He says that this Hridaya is not the muscular heart, but in a mysterious way related to it. He further goes on to say that the brain is the seat of the ministers and not the seat of the master. The master resides in the Hridaya to which there are subtle communications from the brain. He says that it is Prakthyaksha to him in the Samaadhi state. He has quoted Jnaanavaashishtam as an authority on this and his own experience tallies with this. This is a matter for reasearch for modern scientists.

SEVEN TEST FOR EXAMINATION OF A BOOK

meemaamsikaas, who were extremely skillful in determining the purport of a particular passage or a book, prescribe seven tests (Lingaani) for examination.

*"Upakramo Upasamhaaray
Abhyaaso Apoorvata Ta Phalam
Arthavaadho Upapatti Cha Lingham
Taaparya Nirnaye."*

(1) Upakrama, the mode of beginning and (2) Upasamhaara, the mode of ending are to be observed. (3) Abhyaasa (practice)—what are the statements that are repeated in the book on numerous occa-

sions. (4) Apoorvaatha (newness)—what is there new in the book that the author has to tell. (5) Phala (result)—what is the definite effect that the author wishes the reader to achieve. According to Aayurveda the result should be Moksha-Saanti as the Paramaatha—the ultimate goal. It is freedom from all sorts of Dukkhaas (worries) particularly like those due to poverty, fear of disease, old age and death. (6) The sixth test is Ardhavaada. It is a technical term of the Meemaamsa school to denote supplementary arguments. Although the thing about which a statement is to be made or the fact which is to be proved is fixed, the writer, nevertheless, deals with many other things as occasion arises, whether by way of illustration or by way of comparison in the course of the argument, and whether for showing consistency or for showing the similarity or the difference, or in order to support his own side by showing the faults of the opposite side, or for the sake of grace or as an exaggeration, or by way of stating the previous history of the question, or for some other reason, with the idea of supplementing the argument, and sometimes, without any reason whatsoever. The statements, which are made by the writer on such occasions, are given by way of glorification merely or of further elucidation or are only supplemental, though they might not totally be irrelevant to the subject matter to be proved; and, therefore, it is not certain that such statements are always true. (7) Upapatti—it is the name given to the refuting of all things which would prove the contrary.

If we apply these seven tests to determine the purpose of the study of Aayurveda, it is easy to conclude that Aayurveda is primarily an Aadhyaatmika science.

I shall now start with the third test, Abhyaasa, leaving Upakrama and Upasamhaara to the end.

ABHYAASA

Gharaka says that everyone who has his mind directed to what is beneficial to him both here and hereafter should, to the best of his ability according to his physical, mental and intuitional attainments, endeavour for the accomplishment of the three things. These three endeavours are as follows:-

- (1) The endeavour for preserving of life (Praaneshana)
- (2) That for earning wealth (Dhaneshana) and
- (3) That for attaining salvation (Paralokeshana) and they are called the Eshana Trayi. Of these the endeavour for preserving of life is the foremost.

The reason is that in the relinquishment of life, everything is lost. After establishing the certainty of a healthy life, one should seek to acquire wealth. For there is nothing more miserable than the misery of a long life possessed by a person destitute of wealth. Hence one should strive for acquiring wealth and that by proper means. These means may be agriculture, rearing of cattle, trade or service to the king, (i.e.) government service or whatever means as are not disapproved by good people and whatever means as are certain to lead to the acquisition of the means of promotion of a wealthy and happy life. (Vritti Pushti Karaani). By doing these acts, one succeeds in living a long life honoured by all. The practice of medicine as a means of livelihood is not included in the list of honourable professions.

One should always cherish the third aspiration (Paraloka) which concerns itself with the next world. Charaka himself says that doubts are entertained by some with regard to the next world. He condemns these, who pin their faith only on all that is within the direct cognisance of the senses. He discusses this subject at great length and after condemning the various theories (Soo. 11—5), establishes that the Jeevaatma takes up progressive embodiments which are obtained by reason of his good or evil deeds (Karma) during the course of his journey towards salvation. For this purpose, he advocates Brahmacharya—studenthood—for study, married life for serving the society, and penance and stainless acts of body, speech and mind and the practice of the concentration of the mind (Samaadhi) by introspection and control of the body, Indriyas, Manas and Buddhi and by a process of examination of the self (Aatma Pareeksha).

“Dehendriya Manobhuddhi Aatma Pareekshayaam Manah Samaadhayiti.” (Sootra. 11—34)

Charaka thus advocates the education of man through the four Asramaas prescribed for the Hindu society.

VAIDYA DHARMA—THE SUPREME GOAL OF A PHYSICIAN

The supreme goal of a Vaidya lies in selfless work in his own profession. However, consistent with the traditional divisions of life of the individual and the society, the study of Aayurveda was made compulsory for all classes of people for the attainment of the four Purushaarthaas through the study of the rules of health as the most important subject.

The science of Aayurveda should be studied by all for the acquisition of Dharma, Artha, Kaama and Moksha, but more particularly by the Brahmans for doing good to all creatures, by Kshatriyaas for self-preservation, and by the Vaisyaas for gain by practising it as a profession and for selling the medicines prepared by the Vaidyas.

Aayurveda is not to be studied for self-aggrandisement or to be able to enjoy life in all sorts of ways but for doing good to others.

Paro-Dharma (highest merit) is obtained by treating those wise men conversant with the sciences of life (Aadhyaatmaavidya), by treating those who tread the path of righteousness, those who are promulgators of Dharma, and also by treating the mother and father, brothers, kinsmen, seniors, preceptors and by the study and publication of books on Aayurveda.

Wealth is obtained by treating kings and rich men and by protection of the learned, by the enjoyment of fame, and the status of being looked upon as a refuge and protector of all, by the general respect of the community, obedience and service rendered by others, and by the restoration of health of persons that are near and dear and beloved to him.

In India, the Vaidya has a special place of honour in society.

*"Janmanaajayate Soodrah
Karmanah Jayate Dwijah."*

The tradition is that every one is born as a Soodra by birth, but by his own actions he becomes a Dwija.

*"Vidyaa Samaaptau Bhishajah Dwiteeya (Triteeya) Jaati
Rucchyate."*

When he completes his education, a Vaidya is said to be born again because he rises to the grade of Rishis by acquiring the knowledge of Brahman.

To deserve this honour, that is bestowed on him, the physician has also his own responsibilities.

*"Bhishagapyaaturaan Sarvaan
Swasutaaniva Yetnavaan
Abhaadebhya hi Samratkshet
Icchan Dharma Manuttamam."*

The physician who aspires to attain the highest Dharma should protect all his patients with tender care, like his own children.

Those physicians who for the sake of their livelihood sell treatment as an article of trade may be said to throw away heaps of gold and collect heaps of ashes in return. The physician who out of compassion for all creatures, devotes himself to treatment excels all other men because there is no gift more valuable than the gift of life.

*"Naardhaardham (Naatmaardham)
Naapi Kaamaardham
Adha Bhootadayampratti
Yo Vartate Chikitsaayaam
Sa Sarvamati Vartate
Nahi Jeevitha Dhanaahi
Daanaamanyet Visishyate."*

He who has devoted himself to the free gift of treatment out of compassion for living creatures and who gives the invaluable gift of life attains the highest happiness (Moksha), because there is no other gift in the world superior to the gift of life.

"Sukham Atyantam Asmite."

The eternal existence of Aatma is fully discussed in Charaka in several places "Nityah Purusha Samjnakah" (Sareera 151). The topics of Jeevaatma, Paramaatma and Karma are often repeated in the studies of the individual Prakritis of man and in explaining the Panchabhoota, Triguna and Tridosha theories which are fundamental to the studies of Aayurveda.

DAIVAVYAPAASRAYA—FAITH TREATMENT

Aayurveda advocates Deva Guru Pooja (worship of God and Guru) as a means of securing devotion and knowledge. It also advocates Daivavyapaasraya—faith treatment—and Satwaavajaya treatment—treatment by controlling the states of mind (Chittavritti Nirodhah). This is Yogic treatment.

Daivavyapaasraya treatment includes :

*“Mantraushadhi Mani
Mangala Baliupahaara
Homa, Niyama, Praayaschitta,
Swastyayana, Pranipaata, Yaatra, Gamanaadi.”*

The following varieties of treatment are recommended for diseases caused by Daiva (unknown or non-physical causes).

(1) Mantra : The use of sacred hymns or words having spiritual potency. Recently I saw, on the railway station at Tenali, a patient bitten by a snake, who was brought absolutely senseless and stiff like a log of wood. He was placed on the ground apparently as dead. A telephone message was sent to a Station Master who was reputed to possess great Maantrika powers. He replied asking the relatives of the patient to shout loudly into the ears of the patient, “So and so asks you to get up, therefore get up.” They did so for over 30 minutes. But all the time, the patient did not show any signs of life. All on a sudden, he slowly called out, “What is all this” and he was made to stand and walk with the help of the two relatives and taken back alive and free from the poison.

Instances like this are reported from many places.

(2) Aushadi : Contact with or mere touch of some potent herbs worn as amulets. Here internal medication of the herbs is not what was indicated. “Aushadhee Prasastaah Dhaarayet.”

(3) Mani : The touch of precious stones and gems. Influence of active rays of radio-active substances is probably indicated here.

(4) Mangala : Benediction or the influence of auspicious ceremonies invoking the blessings or good wishes of others.

(5) Bali : Practice of self-denial and sacrifice.

(6) Upahaara : Feeding of lower animals and poor feeding etc. as a symbol of mercy and comradeship with the helpless and distressed.

(7) Homa : Sacrifice of ghee and fragrant substances accompanied by auspicious prayers. Fire is considered as a visible symbol of God. So also the sun.

(8) Niyama : Practice of healthy habits and religious observances, conducive to cleanliness and self-control.

(9) Praayaschitta : Atonement for evil deeds committed in the past, either knowingly or unknowingly.

(10) Upavaasa : Fasting as a means of self-purification of the mind and the body.

(11) Swastayayana : Benediction after presentation of offerings.

(12) Pranipaata : Falling prostrate on the ground as a symbol of humility and self-surrender.

(13) Yaatragamana : Visiting sacred places of pilgrimages in order to divert the attention of the patient towards pious thinking and also to promote the influence of the change of climate, change of scenery and physical exercise. In fact, all places of pilgrimage are really health resorts, with their scenic beauty and pure water from springs or rivers for bathing and drinking. Now, of course, they have degenerated, on account of neglect due to want of patronage and to the glamour of Western fashion.

The above methods of Daivavyapaasraya treatment are most effective in the case of those who believe in God and who have faith in these methods of cure. Even today, there are a number of people of all religions in India, who resort to these methods and are greatly benefited by it. They sometimes effect miraculous cures not only in mental diseases such as hysteria and insanity, but also in purely bodily diseases. All pain and suffering disappears by diverting the mind of the patient. It is no wonder that intense Bhakti (faith) creates new and powerful vitality which can cure even organic diseases such as leprosy, diabetes and consumption.

Daivavyapaasraya treatment is now appreciated and utilised in America as psychic treatment. It is an infant science.

APOORVATA

In addition to the four Pramaanas, viz. direct perception, Upamaana (Drishtaanta-illustration), Sabda (Aaptavaakya-testimony of accepted authorities) and Anumaana (inferences) which are the accepted sources of knowledge in all the other Saastraas, Aayurveda gives special preference and importance to a new Pramaana to prove the existence of Aatma—namely Yukti. Yukti means reasoning.

*“Buddhi Pasyati Ya Bhaayaan
Bahukaarana Yogaja Yukti.”* (Charaka Sootra. Ch. 2-25)

The faculty of understanding, i.e. Buddhi, arrives at a particular decision or conclusion by the complicated operation of many ideas (Bhaavas). Where you cannot perceive certain things by the five senses, you think Yukti (reasoning) helps you to arrive at certain conclusions. For example, a man cannot see Aatma unless he develops Yogic powers. But the existence of Aatma can be inferred by Yukti (Ch. Soo. 12). Another thing which is Apoorva to Aayurveda is that in addition to Sabda, Aayurveda accepts as authority Saastraas or sciences which are based on observation and experiment, dedications of which have been tested as sound by competent judges if they are not contrary to known experience and if they are for the benefit of the humanity.

*“Yacha anyat kaschit vedaat avipareetah
Pareekshakaih praneetah sistaanumatah
Lokaanu Grahapravrutta saastra Vaadah;
Sacha Aaptaagamah.”* (Ch. Sut. I. V. 27)

PHALA

The supreme object of human pursuit is, however, considered to be different when viewed from different angles of vision. Every scientist considers his own science as the best.

The Dharma Saastraas give importance to Dharma alone as the most superior.

Artha Saastraas consider wealth which may consist of riches, strength of body, the army, cattle and food, the extent of empire and the possibilities of conquest etc. as superior to all.

Kaama Saastraas say that the gratification of one's desires should be the gospel, even if some obstacles are to be crossed or some suffering should be undergone for the attainment of the goal. The obstacles should be considered as unavoidable and insignificant.

Among the Shad Darsanaas, each has its own goal. For the Saankhyaas, attainment of true knowledge is the supreme goal. In Yoga, Iswara Sannidhaana (communion with God) is the goal. For Nyaya and Vaisheshikaas, extinction of all misery is the supreme goal. Poorva Meemaamsaas consider attainment of heaven—Swarga—as the supreme goal. For Advaita Vedaanta, the knowledge of Sachidhaananda Brahman—pure existence, intelligence and bliss—is the goal, for the Charvakaas, worldly happiness, for Jainaas, Ahimsaa, non-injury to any living being in thought, word or deed.

JEEVANMUKTA IS THE GOAL OF AAYURVEDA

Aayurveda considers Moksha in the shape of mental peace (Saanti) as the supreme goal of man. This may be attained during life. It is not necessary to die in order to attain salvation in the shape of perfect mental peace. He may continue to attend to his worldly duties without attainment or desire for the fruits of his actions as a Jeevanmukta.

ARDHAVAADHA

Charaka discourages those who adopt these methods by saying the following ;—

*“Pari Samvatsaro Bhavaan Siksha Swa
Taavat Na twayaa Gururruupaasito noonam.”*
(Vemana 26.)

“Go and study for one year more. You have not studied under a Guru properly.”

UPAPATTI

Charaka strongly refutes the arguments of Naastikaas and Swabhaavavaa protagonists thus :—

*“Buddhimaan Naastikya
Buddhim Jahyaat
Vicchitsamcha.”*

“A wise man should banish from his mind the ideas of atheism. He should be free from all doubts.”

“Sataam Buddhi Pradeepena pasyat Sarwam Yudhaa Tadham.”

“One should learn the truth of everything through the illumination of the bright light of the intellect of wise men, that is by the advise of great thinkers.”

It is clear from the above that the student should have the proper qualification (Adhikaara) for the study of Aayurveda. Non-believers should first be converted into believers before Aayurveda is taught to them.

The same idea is emphatically expressed in the Bhagavat Geeta thus :—

*“Idam Be na atapaskaaya
Na Athaktaaya kadaa chana
Na cha asusrooshave vaachyam
Na cha maam yo abhyasooyati.”* (Geeta 18-27)

“Never mention this mystery to any one who does not perform austerities, who has no devotion, nor a desire to hear it, nor to one who vilifies me.”

This is also the tradition of Aayurveda. Because Aayurveda is essentially a spiritual science, it has a great message for those who believe it and who wish to benefit by it.

“Tad Viddhi Pranipaadena pariprasneena Sevayaa.”

“Get that knowledge through repeated questioning and through service.”

CHAPTER VIII

UPAKRAMA AND UPASAMHAARA

It is a waste of time to attempt to teach Aayurveda to one who does not believe in it. The student must first have a thirst for knowledge and then approach a proper teacher with a firm belief that Aayurveda is an Aadhyaatmika science.

UPAKRAMA AND UPASAMHAARA

Charaka begins and ends the Sootrastaana of his great work Samhita with a reference to Moksha-salvation. In the beginning, he says.

*“Dharmarthaa Kaamamokshaanaam
Aarogyam Moola Muttamam
Roga Tasyah Hartaarah
Sriyaso Jeevitaasyacha.”* (Charaka, Sootra 1—15)

The avowed object of Aayurveda is to promote perfect health for the sake of Dharma (performance of duty), Artha (acquisition of wealth), Kaama (fulfilment of desires) and Moksha (attainment of self-realisation). Treatment of diseases becomes incidentally necessary because diseases are a hindrance to human effort in reaching these four aspirations of life, particularly Moksha, which is the supreme goal of life.

In the end, Charaka gives the aims and objects of the study of Aayurveda in the following words :—

*“Tatra Ahimsaa Praaninaam Praana
Vardhanaanaam, Utkrishta Tamam
Vidhya Brihmanaanaam
Indriya Jayo Nandanaanaam
Tatwaavabhodo Harshanaanaam
Brahmacharyam Ayanaanaam
Iti Aayurveda Vido Manyante”.*

When the question arose as to which is the foremost amongst diverse means that exist for prolonging life (Praanavardhanaanaam), the proper reply, according to Aayurveda, should be Ahimsa—non-violence—and not food; which is the foremost amongst diverse

means that exist for enhancing strength, the reply should be enthusiasm and not bodily strength; which is the foremost amongst the diverse means that promote nutrition and bulk of the body, the reply should be learning and not meat; which is the foremost amongst the diverse means that contribute to satisfaction (Nandanaanaam), the reply should be control of senses and not sexual enjoyment; which is the foremost among diverse means that contribute to the ecstasies of delight, the reply should be self-realisation and not aphrodisiacs; which is the foremost amongst the diverse means that guide to achieve the four human aspirations, the reply should be Brahmacharya (i. e.), to live in God and not celibacy."

"Iti Aayurvedavido manyante." (Charaka Sootra 30)

"This is the view of the professors of Aayurveda."

Although Aayurveda recognises the worldly or physical happiness in its different aspects mentioned above as the next best, the science of Aayurveda has a higher purpose, which is really and in the long run of supreme importance. For example, food may promote life for the time being, but Ahimsa serves promotion of life best in the long run and similarly for the other items.

It is now abundantly proved that Aayurveda is primarily and essentially a spiritual science. It includes not only the modern medicinal sciences but all the other modern sciences which have some relation or other the life of man. I therefore say it is the top science. *"Lokah Samasthe Sukhino Bhavandhu."*

PART II

CHAPTER I

SADVRUTTAM—GOOD CONDUCT SOCIAL HYGIENE

*Indriyanaam Hi Charataam
Yanmano anu Vidheeyitaa
Tadassa harati Prajnaam
Vayurnaavami Vaambhasi.*

One whose senses are not under his control is destroyed like a ship in a storm. Mere body-building does not lead a man to happiness, unless he is able to control his senses, which lead a man astray if he is a little careless and if he allows them to wander in their own way. Therefore in India, character-building (Sadvruttam) is taught and is enforced from childhood.

We have often said that Aayurveda is not merely the science of medicine, but its chief object is to show the way to self-realisation and salvation by correct living. We cannot divide man into physical, mental, moral, and spiritual bodies. He is an inseparable whole. The Hindu civilisation is based upon the importance given to the spiritual matters than to the physical. This is the law of evolution. The object of our studying anatomy and physiology is different. It is to understand clearly that he is not the material body with the several limbs and cells but he is only the occupant.

SIMPLE RULES OF GOOD CONDUCT

*Na vegaan graama nagara
Devaayatana smasaana*

*Chatuspaththa salilādasaya patthi
Sannikrushtam utsrujet.*

"Never pass excreta in the vicinity of village, town, temple, burial ground, meeting place of four streets, reservoir of water and pathways."

"Never spit, pass wind or stools, or urine, facing wind, fire, water, moon, sun, twice-born and teacher".

(*Na prakaasam avamutrayet*)—"Never pass excreta in the presence of others".

"Never sneeze in public meetings and on auspicious occasions".

"Always avoid contact with rags, bones, thorns, dirt, hair rubbish of grains, ashes and bathing places".

"Always wear clothes that have not been used before".

"Wear your dress according to the fashion of elders".

"Always keep your hair dressed"

"Bathe twice a day".

"Always have top of your head, ears, nose and feet anointed with oil".

"Always keep perfect cleanliness of excretory passages, hands and feet".

"Have your nails pared and your hair and beard trimmed at least thrice every fortnight (*Aheenam*)".

"Walk with your eyes directed at a distance of two yards in front of you".

"Be good natured".

"Use good scents".

"Never be addicted to gambling, women and drinking".

"Be truthful".

"Learn to tolerate harsh words of others".

"Kill desire and envy".

"Always have a brotherly affection towards all living beings (*Bandhu Buthah*)".

"Conciliate angry men".

"Encourage with kind words, people who are frightened".

"Be kind and helpful to the distressed and the afflicted"

"Don't do injury even to one who does you injury".

"Do not laugh loudly".

In Aayurveda, instead of teaching the rules of good conduct in dull prose, it teaches them in beautiful poetry which combines the accuracy of the science and the sublimity of the art.

We give below about one hundred lines from "*Susruta Cnikitsa*"-24, which deal more with physical activities of man and a few lines from "*Charaka Sootra*"—Chapter 8, which deal more with man's social and moral conduct. In the translation into English, the beauty is lost unless this is done by some gifted man. However, we have given a transliteration of these in English.

AROGYA SOOTRAMS

1. Utthaanotthaaya Satatam swasthenaaarogyam Icchataa
2. Dheemataa Yadanushteyam tatsarvam Sampravakshyate

CLEANING TEETH

(*Danta Dhaavanam*)

3. Tatraadou danta pavanam Dwaadasaamgula maayatam
4. Kanishtikaa Pareenaaham ruwjagradhita mavranam
5. Kasshaayam madhuram tiktam Praataruddhitam katukam
6. Nimbasha tiktake Sreshtah Kashaaye Khadirasthathaa
7. Madhuko madhure sreshtah Karanjah Katuketathaa
8. Kshoudravvyosha trivargaaktam sathailam sandhavenacha
9. Choornena tejovatyaascha dantaanityam visodhayeth
10. Yekaikam gharshayedantam mrudunaa koorcha kenacha
11. Dantasodhana choornena dantamaamsaa nyabaadhayan

JIHVAANIRLEKHANAM

(*Scraping Tongue*)

12. Jihvaanirlekhanam roupyam souvarnam tarskhamevacha
13. Tanmalaapaharam sastam mruduslakshnam dasaangulam
14. Mukhavairasya dourgamdhyā sophajaa dyaharam sukhām
15. Danta daardhyakaram ruchyam snehagandooshadhaaranam

TAAMBULASEVANAM
(*Taamboolam*)

16. Karpoorajaati takkola lavanga katukaahvayaih
17. Sachoorna poogaissahitam patram taamboolajam. subham.
18. Mukhavaisadya sougamdhy kaanti soustavakaarakam
19. Pathyam suptotthite bhukte snaate vaantecha naanave

ABHYANGAM
(*Oil bath*)

20. Sirogataam stathaa rogaan abhyango apakarshati
21. Kesaanaam maardavam dairghyam bahutwam snigdha Krushnataam
22. Karoti sirasastruptim sadvaktvamapi chaananam
23. Santarpanam chendriyaanaam sirasah pratipooranam
24. Jalasiktasya vardhamte yathaa moole Amkuraa stharoh
25. Tathaadhaatu vivruddhirhi snehasiktasya jaayate
26. Siraamukhaih romakoopairdhamaneebhischa tarpayan
27. Sareerabalamaadhatte yuktasneho vagahane
28. Tatraprakruti saatmyartu desadosha vikaaravith
29. Thailam ghrutam vaa matimaan yumjyaa dabhyamga sekayoh

VYAAYAAMAM
(*Physical Education*)

30. Sareeraayaasajanam karmavyaayaama samgnitam
31. Tatkrutwathu sukham deham vimrudneeyatsamam tatah
32. Sareeropachayah kantih gaatraanaam suvibhaktataa
33. Deeptaagni twamanaalasyam sthiratwam laagham mrujaa
34. Sramaklama pipaasosha seetaadeenam sahishnutaa
35. Aroyamchaapi paramam vyaayaamaadupajaayate
36. Na cha vyaayaaminam martya mardayamtyarayo bhayaath
37. Na chainam sahasaa kramya jaraa samadhi rohati
38. Vyaayaama kshunna gaatrasya padbhyaa mudwanti tasyacha
39. Vyaadhayo nopasarpanti simham kshudramrugaa yiva
40. Vayoroopa gunairheena mapi kuryaatsudarsanam
41. Vyaayaamam kurvato nityam viruddhamapi bhojanam

42. Vidagdham avidagdham vaa nirdosham paripachyate
43. Vyaayamohi sadaa pathyo balinaam snigdha bhojinaam
44. Sacha seetha vasante cha teshaam pathyatamaah smrutah.
45. Sarveshurutuharahah pumbhiraatmahitai sibhih
46. Balasyaardhena kartavyo vyayaamo hantyatonyadhaa
47. Hrudistaana sthitovayuryadaavaktram prapadyate
48. Vyaayaamam kurvato jamto stadbalaardhasyalakshanam
49. Vayobala Sareereeraani desakaalasanaanicha
50. Sameekshya knryaadvyayaamam anyadhaarogamaapnuyaath
51. Raktpittee krusan sosha swaasa kaasakshudhaaturah
52. Bhuktavaan streeshu cha ksheenobhramaartascha vivarjayeth

UDVARANAM
(*Wick Rolling*)

53. Udvartanam vaataharam kaphamedo vilaapanam
54. Sthireekaranamangaanaam twakprasaadakaram param
55. Siramukha viviktatwam twak sthasyaagnescha tejanam
56. Udgharshanotsaadanabhyam Jayeyaataamasamsayam
57. Utsaadanadbhaveth Sthireenaam viseshaat kaamtamadwapuh
58. Praharshasoubhaagya mrujaa laaghaavadigunaanvitam
59. Udgharshanam tu vijneyam kandukothaanilaanilaapaham
60. Urvo ssam janayatyaasu phenakm sthairya laaghave
61. Kandu kothaanila sthambha malarogaapahascha sah.
62. Tejanam twaggatasyaagneh Siramukhavirechanam

MUKHALEPANAM
(*Face Ointment*)

63. Mughalepaaddhrudham ebakshupeenagandam tathaananam.
64. Avyamgapidakam gaantam Bhavatyambujasannibham

CHAMKRAMANAM
(*Walking*)

65. Adhwaa varnakapha sthoulya soukumaarya vinaasanah
66. Atyadhwa viparectosmaajjaraa dourbalyakrutcha sah

67. Yattu chamkramanam naati dehapedaakaram bhaveth
68. Tadaayurbala medhaagnipradamimdriya prabodhanam

SAMVAAHANAM

(Massage)

59. Preeti Nidraakaram Vrushyam kapha vaata sramaapaham
70. Samvaahanam maamsarakta twakprasaadakaram sukhham

SUKHA VAATAM

(Good Breeze)

71. Pravaataroukshya vaivarnyasthambha kruddaahapaktinuth
72. Swedamoorchaa Pipaasaghna mapravaatamatonyadhaa
73. Sukham Vaatam praseveta greeshme saradi maanavah
74. Nivaatamhyaayushe Sevyam aarogyaaya cha sarwadaa

AATAPAMU

(Sunlight)

75. Aatapah Pittatrushnaagni swedamurcha bhramasrakruth
76. Daaha vaivarnakaareecha chaayaa chaitaanapohati

SNAANAM

(Bath)

77. Hrudayam malaharam sreshtam sarvendriya visodhanam
78. Tandraapaapopa samanam tushtidam pumstwa vardhanam
79. Raktaprasadanam chaapi snaanamagnescha deepanam
80. Ushmena sirah snaanamahitham chakshushassadaa
81. Setena sirasah snaanam chakshushbys mitinirdiseth
82. Sleshma maarutakopethu jnaatwaa vyaadhi balaabalam
83. Kaamamushnam Sirasnanaam baishajyaardham samaachareth

ANULEPANAM

(Ointment)

84. Soubhaagyadam varnakaram Preetyojobala vardhanam
85. Swedadourgamdhyava vivarna sramaghnamanulepanam

VEGADHAARANAM

(Calls of Nature)

86. Dhaarayettu sadaa vegaan Raagaadeenaam jitendriyah
87. Navegaan dhaarayeth na udeerayeth
88. Na Bahirvegaan graamanagara devataa yatana smasaana chatuspatha salilaasaya pathi sannikrusttaanutrujeth.

SADVRUTTAM (CHARAKA)

(Good Conduct)

89. Nityam anupahata vaasah sumanaah sugandhi syaath
90. Saadhu veshah prasiddhakesah tailanityah syaath
91. Trih pakshasya kesasmasru lomanakhaan Samhaarayeth
92. Hitaasee mitaasee syaat kaala bhojee jitendriyah
93. Aahaarasya paramdhaama sukram tadrakshy: maatmanah
94. Kshayehyasya bahoon rogan maranam vaa niyacchati
95. Nidraayattam sukhham dukkham pushtihi karsyam balaabalam
96. Vrushataa kleeabataa jnaanamajnaanam jeevitam nacha
97. Nityam hitahaara vihaara sevesameekshya kaaree vishayesh-wa saktah
98. Daathaa samah satyaparah kshamaavaan aaptopaseveecha bhavetya rogah
99. Sarvamanyat parityajya sareeramanu paalayeth
100. Tadbhaaveei bhaavaanaam sarvaabhaavah sareerinaam

GOD IN THE TEMPLE

Everyone knows that the piece of wood or stone carved into some shape is not God. It is only a symbol (*Lingam*) reminding man of the infinite God who pervades all space. In the temples, all the *Sadaacharaas* (healthy customs) and usages such as cleaning the teeth, oil baths, dressing, marriage, sleeping early at night and waking up early in the mornig are demonstrated in a visible form for the education of the masses. The stories (*Puraanaas*) about God and the ceremonies connected with the temples are object lessons like kindergarten or Montessory lessons for children and cinemas and dramas for adults. A wise and learned man should

also perform *Karmas* in order that he may set an example to other people although he may know that such actions are not necessary for his own elevation.

*Na Buddhi Bhedam Janayet
Ajnaanaam Karmasanginaam
Joshayet Sarva Karmaani
Vidwaan Yuktassamaacharan.*

“Let no wise man unsettle the mind of the ignorant people attached to action. Let the learned man also selflessly engage himself in the performance of the actions dedicating them to me; then he will have no bondage of action.”

BALANCED DIET ACCORDING TO ĀYURVEDA

There is much talk of well-balanced diet in these days. They state that so much of carbo-hydrate, fat, proteids, vitamins and minerals, are required for a well-balanced diet. The modern scientific classification of foods is too crude when compared to the classification of all food materials according to Āyurveda. In every food there are certain factors developing the mental faculties and certain other factors developing the physical build of the body. The modern scientists are still ignorant of even the fundamental principles guiding this classification. Certain factors in diet excite the mental faculties such as alcohol and certain others like buffalo curd retard or dullen these faculties. Alcohol is said to possess more Rajoguna (exciting quality) whereas the other is said to possess more Tamoguna (i.e.) inertia—the opposite of Rajoguna.

I propose to give below a few extracts from the Āyurvedic texts showing the great detail of their studies of the properties of food materials used in India as regards their capacity to develop both the physical faculties of human beings.

PROPERTIES OF FOOD

All substances are classified in Āyurveda according to their
(1) *Guna*—physical and chemical properties, (2) *Rasa*—taste.

(3) *Veerya*—direct action (4) *Vipaaka*—remote action after digestion (5) *Prabhaava*—specific action. Usually *Vipaaka* is more powerful than *Rasa*, whose action begins immediately the substances come in contact with the tongue. *Veerya*, which is classified as heating and cooling, is more powerful, as it denotes the final action.

Each will contribute its own action to the system in its own time, and if the individual effects of these are similar, the total effect will be enhanced. Some substances with contradictory properties have also their own valuable use in therapeutics.

All substances are endowed by nature with certain definite properties according to these five categories. Āyurvedic texts have codified the above-said properties of all common articles of diet and herbs and medicines. Modern research has to verify them and expand their utility.

The properties of these articles of diet may be altered chemically, mechanically, physically or spiritually by cooking, preserving etc. See *Āaraka Vimana*.

The fundamental principles of Āyurveda in respect of the properties of the articles of food are physical, chemical, mental and spiritual.

PHYSICAL AND CHEMICAL PROPERTIES

The same substance may have different physiological and therapeutic properties according to the variation in taste in different stages of its evolution. The same mango has an indefinite taste (*Avyakta Rasa*) in the beginning (i. e.) in its tender state, then astringent, then bitter, acid and finally sweet. So we cannot describe the properties which vary from stage to stage. Generally speaking, acid and pungent substances are heating and sweet substances are cooling. But there are exceptions which have to be carefully studied.

MENTAL AND SPIRITUAL PROPERTIES

Similarly, sweet substances have *Saatwika*—intelligence-promoting—properties and substances which are pungent, sour or saline increase the emotions of the mind (*Raajasa*). Putrifying, over-ripe

and unclean substances are likely to cause dullness of the mind (Taamasa).

Articles of food with a pleasant fragrance (Sughandha) promote better nutrition-Charaka. There may be any number of grades and over-lappings in their composition, of physical and mental properties

Three qualities—Saatwika, Raajasa and Taamasa—are relative and all three are contained in all different combinations and this determines the classifications,

Wheat, red rice, milk, sugar, dhall, ghee, fruits, vegetables Panchasakas (the five greens) and other substances which are not pungent, acid and salty are classified as Saatwika food.

Meat, wines pungent and over-saline articles, which excite human passions are classified as Raajasa food.

Fermented foods kept overnight, rotten meat and fish, over-ripe fruit and heavy foods causing dullness of intellect and sleep are classed as Taamasa foods. Buffalo milk which is heavy and Khudha-anyaas—inferior grains such as Raagi and Korra (Kodrava)—which are lacking in developing intellectual faculties are alike classed as Taamasa. Cow's milk and ghee, are comparatively more Saatwika than buffalo milk and ghee. When Raajasa and Taamasa foods are used in treatment of certain maladies they become Saatwika to that extent.

It is the proper quality and quantity of food and the regularity in eating that are mainly responsible for proper digestion and assimilation of food in its ultimate form.

CONSTITUENTS OF A WELL-BALANCED DIET

Shashtikaan Saali Mudgaanscha

Saindhavaamaalke Yavaan

Aantariksham Payah Sarpih Jaangalam

Madhucha Abhyaseth.

Charaka Sootra. Chapter V.

"Good and fine rice like Shashtika (60 days crop) and Saali (red-rice), green gram, saiti, gooseberry, barley, rain water, milk, ghee, flesh of animals living in forests and honey, should, by habit, be adapted in diet generally."

The above four lines of Charaka contain in a nutshell all the constituents of a well-balanced diet determined by modern experts.

1. Rice, Shashtika and Saali varieties of paddy are examples of the carbo-hydrate food. Raktasaali (red rice) which is classed as glutinous rice is specially recommended. The red covering of the rice was known to possess special nutrient properties even in the days of Charaka and Susruta

2. Green gram (Mudga), which represents the proteid content of food, is considered the best of all pulses. Maasha (black gram) which is known to be more nutritious, was not preferred, because it was comparatively too hard to digest (Guru). Though both are rich in proteid, Laghu of easily digestible proteid has been preferred to a heavy one as being more easily digestible.

3. Saindhava (rock-salt) represents the mineral content of our food. Of all salts, Saindhava is preferred because it possesses cooling properties as compared to others, Chemically analysed, it is known to possess peculiar oxidising properties which the sea salt does not possess. Even in cases where common salt is prohibited certain amount of Saindhava Lavanam is permitted according to Aayurveda.

4. Aamalaka (Embelic Myrobalam) represents the vitamin content of a balanced diet in addition to milk and vegetable. Aayurveda considers Aamalaks is rich in vitamin and that one Aamalaka is equal to 3 oranges.

5. Yava (barley) again represents the carbo-hydrates; it is preferred to wheat, particularly for invalid diet; it is easily digested and is a diuretic. Wheat is, however, proportionately more nutritive and is considered to be more Saatwika.

6. Payah (milk) represents an all-round food containing proteids carbo-hydrates, fats, minerals, and vitamins and all that is required to man from infancy to old age. Milk, however, is considered to be equal to a poison in Navajwara (unripe fever) when Anorexia is a prominent symptom, whereas, the same milk is an Amrita (nectar) to the same patient in Puraana Jwara—chronic fever. Milk is predominantly a Saatwika food.

7. Aanthariksham (rain water):—One could not think of any water better than rain water as the safest and best drink. Although Aayurveda describes eight kinds of wines made of fruits and flowers

etc., they are not recommended in the list of articles for diet for ordinary use.

8. Sarpi or ghee represents not merely the fat content but also the intellect-building principle. The superiority of ghee over other fats, both vegetarian and animal, is very beautifully described in Charaka Sootra Chap. 27-222-29 Smrithi, Buddhi, Agni, Sukra, Oja, Kapha, Meda Vardhanam. Ghee increases memory, intellect, digestive power, sperm, lustre, plumpness and fat in the body. Sarpi (ghee) is described as food for Devas (Gods) as compared oil which is said to be the favourite food of Asuras (demons). (Charaka Sootra 27-230). Ghee improves the intellectual power in addition to physical strength.

Oil is classed as Taamasa—intellect-dullening food—whereas ghee is called as Saatwika, i.e., intellect-promoting food.

9. Jaangala is flesh of animals living in dry jungles. This represents the animal proteid. Here again flesh of animals living in dry jungles is considered as light and easily digested when compared with the flesh of other animals. Of course, it is to be given only to those who are used to non-vegetarian diet by habit (Saatmya).

10. Madhu or honey is glucose in a liquid form. In addition to its carbo-hydrates and vitamin content, honey is recommended as Kapha-hara and because it is collected from numerous plants, it is said to contain peculiar essences of those plants.

In one Sloka of four lines, so much information is condensed. The most important is that the food should not only be nutritive from the physical standpoint but it should be such as would develop the intellectual and spiritual aspects of man.

If scientific research is made, many new points may be made out which will be of immense value to the modern scientists. For example, articles of diet are said to change their properties by (1) the natural constitution (Prakriti)—green gram and black gram are different by nature though both are pulses; (2) Karana (change)—the qualities of a substance as by a chemical process, e. g., milk and curd, (6) Kaala (time), (7) Upayoga-Samstha—rules regarding the use of food, depending upon the indications of digestions, (8) Upayoktri—person taking the food according to the individual susceptibility of temperament. (For details refer to Charaka Vimana Sthaana Chapter 1-25)

GENERAL RULES REGARDING DIET

Food taken only two times daily is the ideal for an average person. But students, like hard-worked bulls, may take food, however, more than twice, provided they feel hungry. They should not take food within three hours after the last meal, nor starve for more than six hours.

The question for India today is not the want of knowledge regarding the best foods to be taken but it is only difficulty for obtaining sufficient food and that of the proper quality.

"Yaamadhye Na bhoktavyam

Yaama Yugmam na langhayet

Yaamamadhye rasopathih

Yaamaayugmaat balakshayah"

Yoga Rat. 3—222

"Saayam Praatah manushyaanaam

Asanam srutichoditum

Naantharaa bhojanam kuryaath

Agnihotra Samo uadhik"

Yoga Rat. 3—227.

"Thaccha nityam prayunjeeta

Swaasthyam yena anuvarthate

Ajaathaanaam vikaaraanaam

Anutpatti karanchayat."

In short, only those articles of diet which keep up the health of the body and which do not cause any disease should be used. These may be different for each individual. On the whole, food having all the six tastes (Shadrasa) is the best (Vara), food having only one Rasa (taste) is the worst (Avara) and the rest are middling (Madhyama).

"Naaprakshaalitha Paanipaada vadanah

Naasuddha mukham annam aadadeetha.',

(Cha. Sut. Chap. 6.)

None shall eat his food without washing hands, face and mouth. This is to prevent infection.

"*Naachitvaa dvijaah bhakshayet.*" (Cha. Sut. Chap. 8.)

Do not swallow food before grinding it well with your teeth.

"*Najaathu bhuktavaan khaadet
Maatraan khaadet bibhukshitaah.*"

One should not eat again immediately after taking some food. One should always eat only when one is hungry and that according to the proper measure.

"*Ajeerne bhojanam yaccha
Yaccha jeerne na bhujyate
Raatrou na bhujyate yaccha
Thaacha jeeryanthi maanavah.*" (Kaamasastra)

He who takes food again before the food taken previously is completely digested, one who does not take food when the previous meal is digested and he who does not take food at all at night—these three persons gradually lose their strength. (Vaatsyaayana Jayamanghala Vyaakya Book I. Chapter IV. Verse 2.)

The final injunction of Aayurveda is,

"*Pathye sati gadaartasya kim oushadha
nishevanam
Pathye asati gadaartasya kim oushadha
nishevanam.*"

The two lines are the same except for the addition of one letter 'a' in the second line. The verse means that there is no need for medicine for a person who observes proper diet and again, there is no use for medicine, in the case of one who does not observe diet, because in the former case, it is unnecessary and, therefore, it is not needed and in the latter case, it is useless and, so not needed.

In short, there is a great need for research in order to pick up invaluable gems contained in the record of experiences of Indian scientists in this all important subject of diet.

TEN COMMANDMENTS REGARDING FOOD

Ten commandments of Aayurveda regarding food are:—
(Charaka Vimana Chapter I. 37—48.)

- (1) *Ushnam Asneeyaath*—One should take food that is warm.
- (2) *Snigdham Asneeyaath*: One should take food that is oily.
- (3) *Maatravat Asneeyaath*: One should take food according to the proper measure.
- (4) *Jeerne Asneeyaath*: One should take food after what is taken previously has been digested.
- (5) *Veerya Aviruddham Asneeyaath*: One should take food that is so made up as not to be of hostile potencies.
- (6) *Ishte Dese Asneeyaath*: One should take food in an agreeable place, so as not to experience any shock in consequence of those feelings of repugnance, which are generated by a disagreeable place.
- (7) *Naati Drutam Asneeyaath*: One should not eat too quickly.
- (8) *Naati Vilambitam Asneeyaath*: One should not eat too slowly.
- (9) *Ajalpan Ahasan Asneeyaath*: One should eat food without talking much or laughing while eating, but with concentrated attention (Tanmanah.)
- (10) *Aatmaanam Abhisameekshya bhunjeeta samyak*: One should eat after an adequate survey of his own self (Aatmanah) noting carefully what is suitable to the self and what is not suitable. Verify that which is suitable to one's own self or soul and not to the body, including the senses and the lower mind. His own Aatma (conscience) should be consulted. No instructions of others can be satisfactory.

CONCLUSION

*Hitaasee syaat, Mitaasee syaat
Kaala bhojee jitendriyah
Pasyah rogaan bahoon kashtaan
Buddhimaan vishamaasanaath.*

Charaka Nidaana 6—22.

This has been said by Charaka when dealing with the causes of consumption. The meaning of this most important verse is as follows.

“Remembering that many painful diseases and difficulties arise from irregular food, a wise man (Buddhimaan) should take food that is suitable to him (Hitaasee) and according to proper measure (Mitaasee). Further, he should eat at proper time (Kaala Bhojee), and should keep his senses under his control (Jitendriyah.)”

Remember that the human being consists of a union of the body, senses, mind and soul.

The lower mind, which is called Manas, may lead the Indriyaas into unhealthy ways. Here, the taste may lead a person to enjoy the temporary pleasure of eating too much and also of unsuitable articles. Therefore, the words Buddhiman and Jitendriyah are used here purposely to emphasise the necessity of self-control, which should begin with his daily meals.

The great importance of the study of Āyurveda is compressed in the above four lines, which should be committed to memory by every student and not merely a student of medicine.

PROMOTION OF POSITIVE HEALTH

A resolution was passed at the conference of Central and Provincial Health Ministers on 10th October, 1946, with the object of absorbing the practitioners of Āyurvedic and Unani systems and their auxilliary personnel into a comprehensive State Health Organisation. The resolution runs as follows :—

“In accordance with resolution No. 13 of the National Planning Committee, the conference resolves to absorb the practitioners of Āyurvedic and Unani systems of medicine into the State Health Organisation, after giving them further scientific training, wherever necessary, as health personnel like doctors, physical training experts, (Ustaads), sanitary staff, masseurs, nurses and midwives.”

The Chopra Committee did not devote sufficient attention to the above resolution beyond stating that promotion of positive health was one of the chief claims of Āyurveda (Page 76. Vol. I) and beyond recommending subjects like personal hygiene, habits, massage,

and exercise in the curriculum of studies for the Village Vaidya training.

In a comprehensive plan for promotion of positive health, special attention should be paid to the revival of Talimkhanas (Akhadaas) in the villages for the utilisation of the physical training experts—Ustaads and masseurs (Samvahaakaas) as stated in the resolution. Vide memorandum of Mrs. Rukmini Lakshmipathi, (dated 10th October, 1946) who moved the resolution that was adopted by the conference.

It is absolutely necessary for the promotion of positive health to utilise the service of the Indian physical training experts (Ustaads) for training the children at schools and the adult population in the villages in exercises and games according to the Indian methods and in the practice of Āsanaas, which are a speciality of India.

The aim of physical education in India is not to develop brute strength. It is to promote self-control and self-reliance.

POSITIVE HEALTH ACCORDING TO MODERN MEDICAL SCIENCE

It is difficult to find the definition of the word “health” in any text-books on modern medicine. It is no wonder, therefore, that Dr. R. R. Bomford, D.M., F.R.C.P., Physician, London Hospital, stated that, as far as he could remember, health was not mentioned when he was a student.

He said this recently in his Bradshaw lecture on the ‘Changing Conceptions of Health and Disease’ before the Royal College of Physicians, London, on 6th November, 1952 (B.M.J. 21-3-53).

He further said that the mechanistic idea of disease, which was then the rule, left no room for the concept of health other than in terms of disease. He also remarks that good health is something more than no disease.

POSITIVE HEALTH ACCORDING TO WORLD HEALTH ORGANISATION

The World Health Organisation (W. H. O.) has laid down that ‘Health is a state of complete physical, mental and social well being and not merely absence of disease or infirmity.’

Even this definition of W. H. O. of positive health falls short of the definition of positive health as given in Aayurveda 2,000 years ago. which includes not only physical, mental and social welfare according to the definition of W. H. O., but also moral and spiritual welfare, of these, the latter being most important.

POSITIVE HEALTH ACCORDING TO AAYURVEDA

Charaka begins the book on Aayurvedic treatment (*Chikitsa*) with the following lines:

*Bheshajam dwividham cha tath
Swasthasya Oorjaskaram Kinchith
Kinchith Aarthasya roganuth* (1-1-4.)

Treatment is divided into two parts. The first part is to make the healthy man feel vigorous, that is, positively healthy and the other part is to destroy sickness (*Roganuth*).

In Aayurveda, health (*Swasthasya*) is defined as that perfect condition of the whole man.

Who has a happy combination of thought, action and speech (*Mano Vaak Karma Sukhaanu Bandam*),

Who has his mind under perfect control of the *Aatma* (the soul) (*Satwam Vidheyam*),

Who has his intellect clear (*Visadaacha Buddhih*),

Who possesses knowledge of the soul (*Jnaanam*),

Who is devoted to (*Tapas*)—austerities and spiritual practices (*Yoya*),

That man is never subjected to any disease. (Charaka Vimana 4)

In other words, one who has suitable food and habits, who always acts after proper reflexion (*Sameekshya karee*), who does not entangle himself in the objects of his senses (*Vishayeshu asaktah*),

Who behaves equally towards all living creatures (*Samah*),

Who is devoted to truth (*Sathyaparah*),

Who is forgiving (*Kshamaavaan*),

Who serves with humility all those, who are wise (*Aaptopasevee*),

Such a man is never subjected to any disease (Charaka Vimana 4).

SUSRUTA'S DEFINITION OF A HEALTHY MAN

Susruta defines a "healthy man" as follows :

*Samadosha Samaagnischa Samadhaatu
Malakriyaah
Prasannaatmendriyah Manaah, Swastha
Ityabhidheeyate.*

A healthy person (*Swasta*) is one, who has equilibrium of the three Doshas—*Vaata*, *Pitta* and *Kapha*, the nutrient elements,

Who has normal digestion and normal condition of the tissues and excretory organs,

Who has his mind and senses clear and bright—*Prasanna*.

The condition of positive health should include, in addition to the healthy condition of the body in the material or physical plane, the normal condition in the mental and spiritual planes as well. A person who is physically fit may be blind or deaf, he may be a stupid and even insane. If a man is worried by all sorts of entanglements, he cannot be said to be healthy. The most important of all is the spiritual health which depends upon the attitude of the man in relation to the society and the universe. The importance of this cannot be easily understood by those who do not believe in the existence of the soul. The body is not "I". Happiness or misery is to the whole body—senses, mind and soul, integrated into one.

Aayurveda stands by the Hindu civilisation and insists on the basic spiritual training being given to the students of Aayurveda :—

*Tatra Buddhimaan Naastikya
Buddhim Jahyet.*

BEWARE OF INDUSTRIAL CIVILISATION

If today the Western nations appear to be in advance, the advancement is not real. Although infectious diseases are in a way conquered, degenerative diseases are eating into the very vitals of

the nations. There is no mental peace. Jealousy, anxiety, discontentment and fear of war are dreadful diseases in themselves. Although half starved and ignorant, the masses of people in India are happier on the whole, than the civilised people of the West.

Alexis Carrel, who was famous for his great research work as a scientist and who was a Nobel Prize winner, says: "The growth of industrial civilisation is leading the Western nations towards their downfall. The sons of the rich in America, today, possess wealth without having had to earn it."

They never struggled against their environment as our poor villagers do. Wealth is just as dangerous to health as poverty. Modern civilisation with the comfort, soft living, hospitals, physicians, nurses and sanitary fittings has kept alive many human beings of poor quality. These weaklings and their descendants—Alexis Carrel says—contribute in America, in a large measure to the enfeeblement of the White races. He says that "They are witnessing the physical, moral, intellectual and social failure. They are now realising that they have been living under a delusion. They have begun to understand that they are decaying, when compared to the hardy races." (Man the Unknown P. 198). They are now attempting to mould the younger generation with a different ideal.

TERRIBLE POVERTY IN INDIA

The root cause of increase of diseases and the death rate in India is the terrible poverty due to the continuous drain of India's wealth for several centuries. Our leaders know this but they are still misled, because their vision is blinded by the gloss of Western civilisation.

In spite of their Gandhian training, many of them are unable to see the great merit of Aayurveda and its power to prevent disease, through development of personality by strict discipline of the body and by self-control. The practical application of strict hygienic principles in daily life in order to discipline the man is the crux of the Hindu civilisation. The genius of the Aayurvedic methods is more to train the man, his body and his senses by self-control than to perfect his environment.

For example, look at the various artificial contrivances which are invented for the use of a man who wishes to protect himself from venereal infection, instead of teaching him to practise strict self-control. All these contrivances fail in actual practice and for want of moral control, syphilitic infection is spreading in the West, so that, it is rare to find an uninfected or untreated man or woman. With the increase of diseases, new cures are needed and these cures are also found by scientists, who are ever vigilant and working hard at these problems.

Good health would be natural and it should not depend upon the doctor and his medicines. It should depend upon man himself, who should be trained to develop self-control and self-reliance.

MODERN MEDICAL SCIENCE CREATES ARTIFICIAL HEALTH

"The survival of the nation should not depend upon the physician." Inherent resistance to disease should depend on the positive strength of the individual. Disease is nothing but the development of the defensive processes which oppose the invasion of the body and the struggle of the tissues and the mind against a disturbing agent. For instance, fever is the reply of the body and the mind to the presence of bacteria and viruses or toxins.

Modern medical science has been weighed and found wanting. In spite of all the hygiene and comforts, the modern educated man dies suddenly in bed or in the office at an age, when his parents were tilling the land or managing their business vigorously. In the place of infective diseases which the White races have conquered, degenerative diseases such as softening of the brain, diabetes, heart and kidney diseases have cropped up. It is easy to conjecture that this premature wearing out of the modern man is due to mental worries, lack of economic security, over-work, absence of physical and moral discipline and excesses of all sorts without self-control. Look at the number of doctors in Madras who are dying before they reach even 45 to 50 years. This proves that modern comforts and habits imposed upon the dwellers of the present cities do not agree with the natural laws. Their health is crumbling under the slightest strain.

NATUROPATHY

Mahatma Gandhi realised these conditions long ago and strongly advocated naturopathy. According to him, it consisted of intensive development of self-control and strict observance of the rules of conduct, so as to adapt oneself to environment. His naturopathy, included regular prayer and self - surrender to God for the purification of the mind and for spiritual development.

Vyaayaam (physical culture) was one of 64 arts that were patronised by the state and the people in India, but the aim of physical culture was not merely to develop brute strength of the body, but it is also to promote self-control. The system of practising *Asanas* affords great opportunities for both.

Mahatma Gandhi said that by his Satyagraha he always meant the Satyagraha of the strong. He is often misunderstood when he preached Ahimsa—non-violence—that he did not encourage development of physical strength. Because he fully realised this, he sent Sardar Pridhvi Singh to organise physical culture institutions (*Akhaadaas*) in Bardoli (1939). Positive physical development of boys and girls should be the first concern of any government and we should aim at it in Andhra Pradesh.

BODY BUILDING IS NATION BUILDING

All schools in the country should primarily be schools of physical education, where all children should be first taught how to look after their body. "Body building is nation building". Unless the wall is strong enough to stand by itself, we cannot think of painting and decorating it, so also the child should first have good health and then all kinds of education may be imported. Susruta says,

*Saktivantam Cha Evam Gnaatwa, Yadhaa Varnam
Vidyaan Graahayet*

First see that the child is strong and then initiate the child in education suitable to the tradition and status of the family and to

the capacity of the child to grasp. Body-building, intellect and character building must go together.

The modern experts, who are the advisers of the Government and who do not know these traditions, are loud in their declarations in season and out of season, in their official communications and public utterances that Aayurveda has no hygiene at all, that India should learn everything from the West, and that the Aayurvedic colleges and schools should be closed down by a certain date to be fixed by the Government. Ignorance cannot go further.

HEALTH EDUCATION IN ELEMENTARY SCHOOLS

Our view, on the other hand, is that Aayurveda should be taught to the child in the cradle through the lullaby songs as in the ancient days in India. Health education through Aayurveda should be taught in the elementary schools and not in the medical colleges.

We have, therefore, studied the question of child and adult education in the Andhra State and we strongly recommend that intensive health education should be given in schools and that visual health propaganda should be conducted through lantern lectures and cinema shows etc., for adult population.

The revival of the old *Talimkhaanaas* (*Akhaadaas*) and the opening of new ones, and the utilisation of the physical training experts (*Ustaads*) and *Samvaadakaas* (masseurs) are urgently needed for promoting positive health of the nation.

MODERN ADVANCES SHOULD BE INTEGRATED

Modern advances in medical sciences or in any department of knowledge should no doubt be integrated into the Aayurvedic methods, whenever possible. There should be a comprehensive State Health Organisation, where medical practitioners of all systems and health officers should, with the co-operation of school teachers, physical training experts, (*Ustaads*), masseurs (*Samvaadakaas*), nurses (*Upachaara Kusalah*), midwives (*Daayis*), and attenders (*Pari-charaka*), work together to make the people develop ideas of cleanliness, body-building, self-control (*Indriya Jayam*) and self-reliance (*Aatma Viswaasam*). People should depend on themselves and not

the doctors for the maintenance of robust health of the body and the mind.

Mrs. RUKMINI LAKSHMIPATHI'S NOTE

The following memorandum was submitted by Mrs. Rukmini Lakshmipathi at the Central Provincial Health Ministers' Conference, New Delhi, on 10th October, 1946 :

Minute of the Minister for Public Health and Medicine, Government of Madras, in connection with the utilisation of the services of physical training experts (Ustaads) in the health development programme.

MODERN TRENDS

During the last few decades every modern nation has undergone revolutionary changes in regard to the concept and content of physical education. For example, the working of the Ministry of Physical Culture and the Youth Movement in Germany, the Ministry of Public Health and Physical Education in Czechoslovakia, the "National Fitness Act" of Australia etc., may be studied. (Vide pages 92, 94, Chapter VII, Bhore Committee Report.)

BHORE COMMITTEE RECOMMENDATIONS

Though the Bhore Committee have dealt with this subject and made some definite recommendations, they did not give physical education the supreme importance and realise the tremendous urgency which it possesses for the Indian nation as it stands today at the threshold of freedom. India had built up a system of *Yoga* and *Vyaayam*, as an integral part of the training in the life of every individual. Every village, and mohalla in the city had its own *Talimkhana* (*Akhaada*). These agencies of physical culture disintegrated during British rule together with the rest of the village economy. The first need of the country, therefore, is the development of armies of young men and women, who are physically fit for national reconstruction work and service. The recommendations of the Bhore Committee envisaged :—

1. Starting of more training colleges for physical culture experts.
2. Making physical education compulsory in all schools and colleges of all grades.
3. Imparting physical culture as part of the training of every school teacher. These teachers are expected to be utilised for physical culture activities in the community of adults outside the schools.

The Bhore Committee wanted physical education to be part of the Education Department but in close liaison with the Health Department. They, however, recognised the need for one single national organisation for the people as a whole.

MY SUGGESTIONS

I wish to make the following suggestions in order to give the proper orientation to physical education as part of a National campaign for health development and to create a national organisation for physical culture.

A MINISTRY OF PHYSICAL EDUCATION

A Ministry of Physical Education should be created in the Centre and in the Provinces. Short of this, a separate Department of Physical Education under a Director of Physical Education in the Provinces should be started. This Department should be under the Ministry of Health in close liaison with the Education Department. This is proper, as positive health of the whole community is the ultimate objective and immediate concern of the Ministry of Health.

IMMEDIATE STEPS TO BE TAKEN

1. Talimkhanas (*Akhaadaas*) which now exist in villages, and mohallas in cities should be registered and encouraged.
2. New Talimkhanas shall be started where they do not exist. The title of *Vyaayama Vidya Praveena* should be given to the leaders of Talimkhanas.

3. Government should set apart waste lands as play grounds and improve them.
4. Government should acquire other lands where waste lands are not available and give them to private institutions.
5. Government should give half grants for buildings and maintenance grants to recognised institutions.
6. Government should appoint an Inspectorate for the proper supervision of Talimkhanas and should award diplomas after conducting examinations through the Commissioner for Government Examinations.
7. The Department of Physical Education should organise a National Health Volunteer Corps. (*Arogya Pracharaka Seva Dal*) in every village.

FUNCTIONS OF VOLUNTEERS

1. Protection of the village water supply.
 2. Promotion of conservancy and sanitation.
 3. Development of places of pilgrimage into health resorts.
- The present position in the Madras Province in regard to physical education is unsatisfactory and ill-co-ordinated. Attempts are now being made to work through 3 departments.
1. Revenue Minister through the Board of Revenue, Tahsildars acting as rural recreation officers in Tehsils—mainly used to create a bias in favour of physical culture and to stimulate recruitment during war time.
 2. Minister of Excise through district recreation officers, recently appointed, in order to divert the attention of addicts in eight prohibition districts.
 3. Minister of Education through the Director of Public Instruction and Inspector of Physical Education and some Physical Instructors are provided in colleges and some secondary schools.

The post-war schemes of the Madras Government deal only with training of physical training instructors and instructresses for supervising physical training in schools. The scheme provides for introducing physical instructors in secondary schools only but not

in primary schools—and no community physical training is contemplated on a large scale.

CONCLUSION

The proposals and recommendations made by me in this minute are calculated to place physical education in charge of a single organisation. In the national health reconstruction programme to be taken up throughout India, this scheme of utilising the existing personnel who are the custodians of the Indian traditions in physical culture, games, folk-dances for training men, women and children, should be made an integral part. Any imitative programmes not based on national traditions and resources are bound to be wasteful failures. I am not, however, against the introduction and development of international sports and games like cricket, hockey etc., and other approved methods of physical development which will be supplementary to our traditional programmes and not substitutes.

(Sd.) RUKMINI LAKSHMIPATHI,

Minister for Public Health & Medicine,

Government of Madras.

NATUROPATHY AND AAYURVEDA *

I do not look upon Nature Cure as merely a source of cure of the disease, but as the great science of the Five Elements. This is as vast and deep a science as any other science. I am dealing with the fundamentals of Nature Cure and the methods of treatments it advocates and also how it is possible for every man to observe them. Naturopathy is primarily an art of living which is conducive to the maintenance and development of health.

COMBATIVE AND PREVENTIVE TREATMENT

Generally speaking, there are two methods of treatment of disease, one is combative and the other preventive. Modern

* The section on Naturopathy has been contributed by Dr. Iyyanki Sri Ranga, L.I.M., N.D., Vijayawada.

medicine practises mostly combative methods. But Naturopathy practises mostly the preventive methods. The former waits until the acute or chronic diseases fully develop and then administers drugs to subdue them. They fight disease with disease, poison with poison and germs with germs and so on. But a Naturopath prevents the disease from gaining its roots in the body and adopts the methods of Nature Cure. Apart from other effects, it guards the body from any kind of infection in its initial stages. Medical science has been by a strange influence of the times forced to abandon a good number of theories and practices, which were at one time considered firmly established scientific theories.

RESEARCH IN DRUGLESS AND PREVENTIVE CURE

Some outstanding medical practitioners in different countries of the world took a special interest in the study of Nature Cure, conducted researches on the subject and got themselves perfectly convinced of the genuineness of its principles and the methods of cure it advocates. They practised this drugless and preventive Nature Cure. All their sincere, strenuous and elaborate researches gave proof after proof and created a lasting and indisputable impression of the genuineness of Nature Cure on the minds of both the doctors and patients. There are several methods of treatment in Nature Cure, namely, of water, of air, of sun, of earth and of colour etc. With unflagging interest and perseverance and full application of their common sense and reason, they found solutions to the problems of health, disease and cure, all based upon the principles of Nature Cure.

DISEASE IS ABNORMAL

In its view, disease is abnormal, the primary cause of which is violation of nature's laws. The effects of such violation are lowered vitality, abnormal composition of blood and lymph, accumulation of waste matter and poisons in the body. Acute disease is in reality the result of nature's efforts to eliminate from the organism waste and foreign matter and poisons and to repair injuries in the tissues. That is to say, that every acute disease is the result of cleansing and

healing effort of nature. When the disease becomes too chronic to be reacted upon by the efforts of nature, the disease gets static.

TWO FORMS OF CRISIS

There are two forms of crisis, one healing crisis and the other disease crisis. Disease crisis is an acute reaction from the development of diseased condition over the healing forces of the organism. It is, therefore, fatal. Cure means a readjustment of the organism from abnormal to normal condition and function (*Dosha saamya marogata*). Here Nature Cure plays its active part. Its aims are (1) to establish normal surroundings and natural habits of life in accordance with the laws of nature; (2) to encourage vital forces (3) to supply and distribute blood in right proportions and with natural constituents; (4) to promote the elimination of waste material and poisons without injuring the body and (5) to correct mechanical injuries. Some of the simple medicines used in Nature Cure are more in conformity with the constructive principles in nature and they act as tissue foods and promote the neutralisation and elimination of morbid matters and poisons from the body.

THE PRIMARY CAUSE OF DISEASE AND ITS MANIFESTATIONS

Improper and unhealthy thoughts, irrhythmical breathing, unhealthy habits in dietetics, addiction to alcoholic drinks, sedentary life, over-work, insufficient rest, sexual excesses and irrational social conduct, these in general result in certain primary and secondary manifestations of disease.

We can compare the three primary manifestations of diseases with the three primary life requirements of the cell as they coincide with each other. The primary life requirements of the cells are innervation, assimilation and drainage Cf. *Vaata*, *Pitta* and *Kapha*.

MYCHROZYMA DEVELOPS INTO BACTERIA

Presently, I should like to explain an entirely different fact relating to the established theory that bacteria are the primary cause

of some of the diseases. As the system gets clogged with morbid and toxic material, the mychrozyma of the normal cells under the above pathological conditions only and due to the putrificative changes of the same, develop into bacteria. The mychrozyma are the chromatin granules of the cell. These bacteria feed on and decompose the morbid matter from which they have developed. As long as the morbid matter is present, the bacteria feed on that and when it is exhausted the mychrozyma feed on the protoplasm of its own bacteria. So, at last practically no bacteria are left behind except the mychrozyma themselves which are indestructible.

INFLAMMATION IS A KIND OF CLEANSING AND HEALING EFFORT OF NATURE

Any kind of inflammation is a kind of reaction, which is a cleansing and healing effort of nature, in the form of an acute disease. Nature Cure easily modifies the course of inflammatory and feverish processes and keeps them within safe limits whereas the acute reactions are only checked temporarily in allopathy by drugs, ice, serums, anti-septics, anti-biotics, operations or any other suppressive treatments. Skin eruptions, catarrh, diarrhoea and other febrile disease processes indicate the fact that nature is trying to eliminate waste products assuming an acute diseased condition. By suppressing these acute manifestations, morbid matter is thrown back into the system and fatal complications arise, or the acute process is changed into chronic disease. The acute reaction is local, but the causes are always constitutional and local reaction must be treated constitutionally. Under Nature Cure, the poisons are eliminated from blood and tissues and the local symptoms take care of themselves.

ACTION AND REACTION—FUNDAMENTAL LAW OF NATURE

The fundamental law of Nature Cure is action and reaction. It produces two effects, the first being temporary and the second a lasting one, the second effect being always contrary to the first effect. For instance, cold water applied to the skin first draws blood in and

then draws it to the surface in larger quantities with increased warmth and better surface circulation. Similarly, hot water bath draws blood to the surface. The second effect is that it sends the blood back to the interior leaving the surface more or less bloodless. The first effects of relaxation are sleep, weakness and numbness and stupor. The second effect is an increase of vitality. Similarly, stimulants, head-ache powders, pain-killers, opiates, sedatives and hypnotics may paralyse the nerves into temporary insensibility. But, if the constitutional diseases are not eliminated, the pain and insomnia will inevitably return with redoubled force and weaken the heart.

FUNDAMENTAL PRINCIPLES OF NATURE CURE AND AAYURVEIDA IDENTICAL

Hete, I should like to make a brief reference to Aayurveda, as the fundamental principles of Naturopathy and Aayurveda are identical. The treatment also is identical in their principles. According to Aayurveda, the body consists of nutrients tissues and debris—*Dosha*, *Dhaatu*, *Mala*. The *Doshaas* are nutrients in the healthy state and they are made up of solids, liquids and gaseous material supplied to the organism. They are transformed in the processes of digestion into the three substances called *Vaata*, *Pitta* and *Kapha*, which are the three supporters of the body—*Tridhaatus*. These *Tridhaatus* in the normal state are in the form of fine fluid, circulating in every part of the body. They feed the cells and tissues with material that is required for their growth. But, in pathological condition, *Kapha* has got a tendency to accumulate and to obstruct the passages or srotases and damage the process of lubrication. *Pitta* has a tendency to become more liquid and to weaken the digestion and bio-chemical processes in the body. And *Vaata* has a tendency to expand indefinitely and to disturb the nervous activity or the vital forces in the body. The tissues that are supported by this nutrient fluid are called *Saptadhaatus*. They are seven in number 1. *Rasa* (Annamasa or chyle), 2. *Rakta*, 3. *Mamsa* 4. *Medas* (fat), 5. *Asti*, 6. *Majja* (bone marrow), 7. *Sukra*. All the tissues sub-divided differently in modern medicine are included in one or other of these seven *Dhaatus*

THIRTEEN CONSTITUENTS OF THE BODY

The three Malas are faecal matter, urine, and sweat. There are other Malas which are derived out of the tissue metabolism both in health and disease. The expired air, air transpiring through the skin and the air passed out as flatus are also Malas. When all these above thirteen constituents of the body are in healthy state these are in a Prasada (pure) state. And when they are vitiated in any manner they are said to be in Mala (impure) state, which is responsible for ill-health. There are different channels in the body for circulation of these thirteen constituents. As long as the srothases or channels are in the normal state and the circulation of three Dhaatus or the nutrient material is free and unobstructed, health is maintained.

Thadetath Srothasaam Prakrithi Bhotathwaath
Navikaarair Upasriyathe Sareeram.
(Charaka Vimanam.)

Disease is defined histologically as the morbid interaction of Doshaas, Dhaatus and Malas.

Kupithaanaamhi doshaanaam
Sareere pari dhaavathaam
Yathra sangah Khavaigunyaath
Vyadhi hi thathra Upajaayathe. (Susrutham)

SIX STAGES OF DISEASE

When destruction takes place, a series of changes take place: 1. *Sanchaya* (accumulation of Doshaas), 2. *Prakopa* (their excitement), 3. *Expansion*, 4. *Sthana Samsraya* (change of place or localisation), 5. *Vyakti* (exhibition of the full disease), 6. *Bheda* (destruction of the tissue). The objects with which the treatment is conducted are:

Samsodhanam, Samsamanam
Nidaanasya cha varjanam
Yethaavath Bhishajaa Kaaryam
Rogeroge Yadhaavidhi,
(Charaka Vimaanam, 7.43)

THE METHOD OF TREATMENT

(1) *Samsodhanam*—removal of pathogenic material from the body by purging it out.

(2) *Samsamana*—relieving the tissues of the evil effects caused by the pathogenic agent and soothing the excited Doshaas. This includes the improvement of the *Khseena Dosha* and *Dhaatus* reduced below normal.

(3) *Nidaanasya cha Varjanam*—rooting out the original causes responsible for the disease (*Prakriti Vighata*) i.e., the removal of causes such as improper food and conduct etc., and restoration of natural powers of resistance.

THE THREE CONDITIONS OF DOSHAAS

The conditions of Doshaas are divided into three classes, 1. *Vridhhi* (increase), 2. *Sthiti* (stillness) the normal condition and 3, *Kshaya* [decrease]. These are to be recognised for the purposes of treatment. The circulation of *Vridhha Doshaas* takes three abnormally directed movements, upward, downward and sideways. According to the seat of the abnormal Doshaas, they are said to move in the internal, external and middle routes.

THE THREE ROUTES OF DISEASE

Internal Route: When their abnormal movements are confined to Kosta, the alimentary canal [i. e.] when they are moving in the internal route it is easy to eliminate them either by vomiting or purging.

The external route is *Sakhas*, *Twak*, *Rakta*, *Maamsa*, *Medas*, *Asthi*, *Majja* and *Sukra*. When the disease is seated in the *Sakhas*, it is much more difficult to dislodge them than when it is seated in the alimentary canal. They have first to be lubricated by *Snehakarma* i. e. applying oil to the body, and then be dislodged by *Swedakarma* (fomentations) and any other methods to dislodge them from their seats and then thrown into the general circulation and finally into the Kosta, wherefrom they are to be eliminated through mouth or anus.

Middle Route: When the Doshaas are lodged in the *Marmas*, and the *Ashti Sandhis*, it is much more difficult to dislodge the vitiated Doshaas from these situations. The chief Marmas are the head, the chest and the pelvic area.

BODILY AND MENTAL DISEASES

Diseases may be divided into two kinds; bodily and mental. Bodily diseases are due to derangement of the three above Dosh-aas. Mental diseases are caused by Rajas and Tamas which are the Doshaas of the mind. Due to the Kaama, Krodha, Lobha, Mada, Maastarya, Earshya, Moha, Soka, Chittodwega, Bhaya, mental diseases are developed. Physical and mental diseases are inter-related and inter-dependant. The constituents of the mind are Satwa, Rajas and Tamas. Their equilibrium is health. The predominance of Rajas and Tamas is responsible for all diseases. So they are the Doshaas of the mind just as Vaata, Pitta, and Kapha are the Doshaas of the body.

ONENESS AND UNITY OF DISEASE AND TREATMENT

Regarding the classification and enumeration of bodily diseases, the diseases cannot be counted as being unlimited. But the Doshaas that cause these unlimited diseases are only three in number and their combinations can be easily counted and studied. So we devote more attention towards the study of the various conditions of the Doshaas than to name the diseases.

Whatever the disease manifestation is, the condition of the Doshaas is studied and treatment is undertaken according to the state of the disease with a view to eliminate the pathogenic accumulations in the body. This proves the unity of disease and treatment. To purify the body, there are five ways of treatment, in addition to Sneha and Sweda, namely, Vamana, Virechana, Vasti, Rakta Mokshanam, and Nasyam.

DISEASE ARRESTED BY ACTIVE ENERGY OF THE MIND

Disease can be arrested by active energy of the mind put into operation in the physical body. One should not be discouraged.

Persons who are active have no time to be sick. One must deny the power of disease to take hold upon him in order to conquer it. If you feel dull and inactive, take active exercise. Remember that you can control every sensation of the body by will-power & make the body obey your will even in excluding the disease from your body. In some instances, we know imagination to be positive source of disease. And the same imagination can bring a cure also. Imagination can kill or cure any one.

SEVERAL CAUSES OF DISEASES

In short, the following are the causes of diseases. The causes of diseases are (1). Accumulation in the body of poison morbid or effete matter due to mistaken diet and other habits of life leading ultimately to destructive and degenerative changes; (2) Accidental and mechanical injuries and faulty habitual postures leading to the hindering of normal functions; (3). Inherited tendencies, taints and poisons; (4). Sexual abuse and dissipation; (5). The administration of alternative and suppressive drugs, the introduction of vaccines, sera and other substances foreign to the body, destructive surgical operations, habitual use of stimulants and narcotics and the adulteration of food stuffs; (6). Short-sighted methods of soil fertilisation and sewage disposal leading to soil deficiencies and plant diseases with consequent fundamental deficiencies in human nutrition; (7). Insanitary conditions of work, housing etc.; (8). Destructive and poisonous emotions such as fear, hate, worry, jealousy, anger, morbidity and self-pity; (9). Suppression and wrong handling of desires, instincts and impulses.

VARIETIES OF NATURAL TREATMENTS

People in general believe that Nature Cure means only tub bath and nothing else. But, in fact there are a variety of treatments. Some of the varieties are:—

- (1). Rightly arranged food and drink, embodying the principles of purity, moderation and balance;
- (2). Water applications, internal and external (hydro-therapy);

- (3). Correction of every habit of life in breathing, posture, clothing, ventilation etc. (Yoga treatment);
- (4). Air, light and sun-baths (heliotherapy);
- (5). Remedial exercises;
- (6). Skilled administration of electric light, colour and electricity;
- (7). Skilled manipulation (chiropractic massage etc);
- (8). Control of sexual energy and transformation into vitality.
- (9). The administration of non-cumulative, non-poisonous and non-suppressive herbal medicines,
- (10). Cultivation of the positive and healing thoughts and emotions such as confidence, calm; goodwill, etc;
- (11). Curative suggestion, self-suggestion and all other mental or spiritual healing methods, which involve arousing the active co-operation of the sick person's individuality with the healer, and
- (12). All other humane and nature methods which have been discovered or to be developed in future may be adopted for the utmost advantage of humanity. In any disease, one may adopt any one or all of the above mentioned methods of treatments

CURE BY FASTING

Cure by fasting is one of the most important methods of cure according to Naturopathy.

The reason why absolute fast is insisted upon in acute diseases is that large quantities of morbid matter which have been accumulated in the system for years are squeezed out of the tissues and thrown out into the digestive tract. Whereas in normal healthy state digestive tract absorbs the elements of nutrition, the process of digestion and absorption in the digestive tract is very weak or totally absent in the acute disease. The vitality and the energies of the patient vigorously work towards the elimination of morbid matter and thereby cleanse the system thoroughly. So, any form of diet is most unnecessary, rather harmful in acute diseases. But the so-called nourishing diets taken during acute diseases are not properly digested and assimilated. On the other hand, waste matter is accumulated and fermentation and putrefaction take place vigorously. Secondly, diet given during acute condition of the disease forces the diges-

tive tract to digest and assimilate during which it interferes totally with the elimination of the morbid and toxic matter. Thirdly, the vitality of the patient, which is vigorously fighting against the morbid material to eliminate the same is diverted towards the digestive tract. Now, we can understand why milk and the other nourishing foods given during acute attacks of fever, invariably aggravate the temperature for days and weeks together.

Hence, fasting according to the patient's condition may be taken as the primary agent of Nature Cure. This, supplemented by other curative methods of hydropathy, chromopathy and various other natural methods of treatment, forms Naturopathy.

DRUGS AND MEDICINAL PREPARATIONS

It is good that every Aayurvedic physician should make his own medicines, as he can generally get reliable crude drugs very cheap locally and the medicines so prepared will be most effective and to the satisfaction of the physician. But in accordance with the present tendency for easy-going methods, factories for preparing the Aayurvedic medicines may be started at the place where the Aayurvedic colleges are established on the lines of the co-operative society now working at Adyar. The factory will provide a good training ground for the students, who should be posted for practical training in small batches. The students should be prepared to engage themselves in manual labour whenever there is an opportunity for such work. The sales of these medicines to the public will be so considerable as to meet of the expenses of the maintenance of the dispensaries and also supply the hospitals attached to the colleges with the required medicines. To start with, every district may have a factory on a co-operative basis and manufacture enough medicines for the free dispensaries of the whole district,

The Bhore Committee Report (1946) and the Chopra Committee Report (1948) contain valuable information obtained after a careful study of the problems of the supply of drugs and medicinal preparation in India. There has been no improvement in our condition since then. The reports apply to the Andhra State as to the whole of India. We need not go here into their discussion, But we may accept their conclusions and take the necessary action.

THE PRESENT CONDITIONS IN THE ANDHRA STATE

Almost every drug that the Aayurvedic physician in Andhra State wants is available within the State. As a general rule, we should make it a point that all the medicinal requirements of an Aayurvedic physician should be produced within the State. As it is, at present, most of the drugs produced in the forests of the Andhra State and the Hyderabad State are exported to Bombay and they are sent back to Madras or Bezwada with enhanced prices. This is due to the monopoly that some Marwadi merchants possess in this trade for a long time.

PRIVATE AGENCIES AND DIRECT EXPLOITATION

The Bhole Committee Report (Vol. II p. 285) says.

"We feel that given a genuine desire to explore and exploit to the utmost the resources of the country, the list of medical requisites which cannot be produced in India, will shrink to extremely limited proportions."

"In certain instances, adequate aid and encouragement should be given to certain reliable private agencies to collect certain drugs and to develop trade in these drugs," which grow in waste lands and forests in the Andhra State. Such organised establishments are at present necessary to meet the fundamental need of the State. It does not require any heavy expenditure of money, but it only requires some efforts in organisation and some time. Once the organisation is started in a systematic manner, the quality of the materials can be improved by setting up a research department, to study and standardise each product. Checks may be easily created so that the quality may be maintained upto the required standard. However, direct collection and a management of the drug industry should also be organised on a small scale by the State through the Forest Agricultural Departments in order to get experience in the business and to train the supervising staff.

DRUG RESEARCH IN ANDHRA UNIVERSITY

The Andhra University has already a pharmaceutical department which should be encouraged to do research in the drugs commonly used in Aayurveda. Some students may be given special scholarship for this purpose. It will pay largely in the long run. They may easily discover better and new methods of identification and tests for the relative efficacy samples of drugs.

STATE'S FINAL RESPONSIBILITY

The final responsibility should however rest with the Government to ensure the satisfactory supply of the requirements of drugs in regard to quality, quantity and price. As stated above, a combination of private enterprise suitably assisted when necessary and production by the State, where there is found to be public demand, are both required. State manufacture and sale are also necessary in order to set up a standard of efficiency and to supply their own institutions.

The position of the drugs trade in the Andhra State is in a most unsatisfactory condition. Adulteration and inattention are so gross as to result in the denial of all benefit to the State of its great natural resources. It is very difficult to get without adulteration even such common drugs and preparations as Sarasaparilla (Sugandhi), Gorojan, Vamsalochana, Vidangam and Gudoochi Satwan (Tippa Sathu). Even the very common article, namely, dry ginger (Sonthi) is difficult to get of the good quality.

This is partly due to carelessness, but it is mostly due to the unscrupulousness of the drug collector, drug vendor and the middleman. This is an industry of great national importance. Proper administrative machinery should be set up and it will be able to create an overwhelming bulk of business in the medical requisites of the vast country. It is an economic proposition. The raw materials are plenty. They are now going to waste.

The importance of maintaining adequate standards of purity in the drugs and medicines used in connection with prevention and treatment of disease can hardly be overstated. The Aayurvedic physician has suffered much in the past from the unscrupulous man

in the drug business. His reputation stands upon the efficacy of his own medicines. As long as he makes his own medicines, there is no harm. He knows their effect and the dose in which a particular medicine has to be used. But pharmacies are now started everywhere. Any oil is sold in the name of any other oil. They are not subject to any supervision or regulations.

STATE CONTROL

Commercial concerns selling drugs and manufactured medicines in the Andhra State shall obtain a licence from the Government of Andhra State on payment of Rs. 2 only.

The grant of such licence should be preceded by an examination of the proposed plan of collection and manufacture and of the qualifications of the personnel employed as well as an inspection of the place. Samples of the products should also be taken periodically for tests as regards the purity, potency, date of expiry of its use, and other criteria in order to ensure that the standards laid down are being observed. The licence is liable to cancellation at any time, if the quality of the product or the conditions of manufacture are found to be unsatisfactory.

It is possible that these regulations may lead to oppression and corruption due to unscrupulous officials. Today, we are our own rulers. We must set our house ourselves in order if we want to progress. The Drugs Act was passed by the Central Legislature in 1940 and the Drug Rules under the Act were passed in 1945. They are not now strictly enforced. We also did not want the rules to apply to Aayurvedic medicines. But now we must change our attitude.

The Drug Technical Advisory Board appointed by the Union Government is now responsible for advising the Union Government and the State Governments in technical matters connected with the administration of the Drug Act. The Central Drug Laboratory carries out the analysis of samples sent to it. The Andhra State should have its own department for analysis of drugs and prepared medicines produced or used in the State.

Scientific knowledge should be made useful in verifying the efficacy of Aayurvedic drugs and medicinal preparations sold in the

market, because the fair name of Aayurveda suffers by the use of drugs of doubtful value.

COMPILATION OF A TEXT BOOK ON AAYURVEDIC MATERIA MEDICA

The nomenclature of the drugs differs from one province to another and there is no uniformity of opinion between Vaidyas and Hakims with regard to their identification. As a result, both private practitioners and manufacturing firms of Indian medicines have suffered considerably. As most of the existing books on Materia Medica do not give all the information required for a drug, efforts should be made to compile a proper text book on Materia Medica.

Difficulties in connection with standardisation and determination of the pharmacological action of both single drugs and compound preparations are also great.

Aayurvedaachaarya Pandit I. V. Sarma, Professor of Research at the College of Indigenous Medicine, Madras, has compiled a valuable book on Materia Medica of Aayurvedic Medicines. I learn that it is now revised and translated into Sanskrit. The Andhra Government may easily improve upon it.

Another difficulty is, that most of the Aayurvedic medicines are compound medicines and they cannot be easily analysed and tested. Their preparations are to be checked only during the process of manufacture. We have to trust to the honesty of the manufacturer. He will use whatever is available and will omit whatever is more costly or not easily available. He can easily omit Vamsalochana, the most costly ingredient in Talisaadi Chooranam, without being detected.

PHARMACOPOEIA OF AAYURVEDIC MEDICINES

A pharmacopoeia of Aayurvedic medicines should be prepared and published under the authority of the Andhra State and called the Andhra Aayurvedic Pharmacopoeia. A small Expert Committee should be constituted to consult all the literature, collect their data and consolidate them. The Government and all manufacturers who sell medicines to the public should be compelled to prepare their medi-

cines according to this pharmacopoeia. Manufacture and sale of patent or secret medicines should be strictly discouraged by taxing them heavily. The industry requires strict supervision and protection until the required supply is made available in the Andhra State. The import of medicines from outside into the State should be discouraged as far as possible.

AAYURVEDIC PHARMACISTS

There are not as yet organised centres for high pharmacy training in Aayurveda. There are, however, a few centres in the several States for training compounders in Indian medicine, who are taught only compounding and dispensing medicines. The training of pharmacy in Western medicine for candidates with sufficient basic qualifications, covering a period of three years, was started only a few years ago. Well-trained Aayurvedic pharmacists are essential for preparing reliable medicines for sale to the public. Their absence is a great source of danger and it also hampers progress.

TRAINING IN TWO GRADES

Aayurvedic pharmacists shall be trained in two grades. Grade I.—Oushadha Vidya Praveena—The course shall be for 3 years. The committee suggested above shall decide the qualification for the syllabus and other details. They shall be trained in Aayurvedic colleges and in institutions recognised by the Government of the Andhra State for the purpose. The Commissioner for Government Examinations shall hold the examinations for them every 6 months. The examination fee shall be Re. 10/-.

Grade II—Oushadha Kalpana Kusala—This may correspond with the grade of the existing Aayurvedic compounders. The course of training shall be one year. This class of pharmacists may be trained in large numbers in pharmacies attached to the Aayurvedic teaching institutions, including the recognised Gurukulas and in the factories of the recognised manufacturers. Private Registered Aayurvedic Practitioners may also train them according to the prescribed syllabus for one year after obtaining permission from the Government.

The Commissioner for Government Examinations, Andhra State, shall hold examinations for them every six months. There shall be one or two written papers and one practical examination and one oral examination. The fee for examination for Grade II shall be Rs 2/- only.

REGISTRATION OF PHARMACISTS

The pharmacists of the two grades shall be registered in one register in the alphabetical order stating the qualifications. The existing compounders shall also be registered in the same register. The fee registration shall be Rs 6/- only. This will raise their status. Only those who are registered shall be employed in Government and Local Board service. They shall also be encouraged for service under private practitioners and in manufacturing concerns of Aayurvedic medicines.

INVESTIGATION SUB-COMMITTEE

A small committee, consisting of the representatives of the Aayurvedic industry. Vaidyas, Hakim and few modern pharmacists, should be appointed to examine the requirements of the country in respect of indigenous drugs and finished products and the way this control could best be exercised. The following are some of the subjects which this committee might investigate.

(a) What are the crude drugs and finished preparations essential for use in Aayurvedic medicine?

(b) What practical steps should be taken to ensure the procurement of the right type of crude drugs and the preparation of finished products?

(c) What should be the nature of the aid and assistance that may have to be given to private agencies engaged in this work and under what conditions?

(d) What machinery should be set up to ensure a steady flow of trained technical personnel?

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Aayurvedic pharmacists shall be trained in two grades. Grade I.—Oushadha Vidya Praveena—The course shall be for 3 years. The committee suggested above shall decide the qualification for the syllabus and other details. They shall be trained in Aayurvedic colleges and in institutions recognised by the Government of the Andhra State for the purpose. The Commissioner for Government Examinations shall hold the examinations for them every 6 months. The examination fee shall be Re. 10/-.

Grade II—Oushadha Kalpana Kusala—This may correspond with the grade of the existing Aayurvedic compounders. The course of training shall be one year. This class of pharmacists may be trained in large numbers in pharmacies attached to the Aayurvedic teaching institutions, including the recognised Gurukulas and in the factories of the recognised manufacturers. Private Registered Aayurvedic Practitioners may also train them according to the prescribed syllabus for one year after obtaining permission from the Government.

The Commissioner for Government Examinations, Andhra State, shall hold examinations for them every six months. There shall be one or two written papers and one practical examination and one oral examination. The fee for examination for Grade II shall be Rs 2/- only.

REGISTRATION OF PHARMACISTS

The pharmacists of the two grades shall be registered in one register in the alphabetical order stating the qualifications. The existing compounders shall also be registered in the same register. The fee registration shall be Rs 6/- only. This will raise their status. Only those who are registered shall be employed in Government and Local Board service. They shall also be encouraged for service under private practitioners and in manufacturing concerns of Aayurvedic medicines.

INVESTIGATION SUB-COMMITTEE

A small committee, consisting of the representatives of the Aayurvedic industry. Vaidyas, Hakim and few modern pharmacists, should be appointed to examine the requirements of the country in respect of indigenous drugs and finished products and the way this control could best be exercised. The following are some of the subjects which this committee might investigate.

(a) What are the crude drugs and finished preparations essential for use in Aayurvedic medicine?

(b) What practical steps should be taken to ensure the procurement of the right type of crude drugs and the preparation of finished products?

(c) What should be the nature of the aid and assistance that may have to be given to private agencies engaged in this work and under what conditions?

(d) What machinery should be set up to ensure a steady flow of trained technical personnel?

EXCISABLE AND POISONOUS DRUGS

All the commercial firms who gave evidence before the Chopra Committee complained of the difficulties they faced in respect of procuring excisable and poisonous drugs such as opium, ganja, alcohol, arsenic etc. The complaint is genuine. These firms as well as Aayurvedic physicians should have the same facilities with regard to the above as are available to the manufacturing firms of Western medicine and the practising doctors.

I suggest that the following recommendations shall be made to the Government of the Andhra State.

(1) Encouragement should be given to certain reliable private agencies to collect certain drugs and develop trade in these drugs.

(2) Direct collection of the drug should also be organised in a moderate scale by the Government of the Andhra State through the Agricultural and Forest Departments.

(3) The final responsibility should, however, rest with the Government to ensure the satisfactory supply of the requirements of the drugs in regard to quantity, quality and price. Combination of private enterprises suitable assisted when necessary and production by state, where there is found to be public demand are both required. State manufacture and sale are also necessary in order to set up the standard efficiency and to supply their own institutions. There should be a Government Aayurvedic Medical Stores, where reliable medicines and drugs should be available to the Government hospitals and to the public.

(4) The Andhra University has already a pharmaceutical department, which should be encouraged to do research in the drugs commonly used in Aayurveda. It will pay largely in the long run. They may easily discover better and new methods of identifications and tests for the relative efficiency of the samples of drugs.

(5) Scholarships should be given to suitable students in Andhra University for conducting research in identification and preservation of Aayurvedic drugs.

(6) Commercial firms, selling drugs and medical preparations, should obtain a licence on payment of Rs. 2 only.

(7) A central co-operative factory and stores should be started in a suitable locality such as Bezwada for manufacture of medicines.

District co-operative factory and stores should be started in each district. Medicines from these centres may be supplied to depots which may be opened in big and small co-operative societies throughout the Andhra State.

(8) A text-book on Aayurvedic Materia Medica should be prepared under the authority of the Andhra State.

(9) The Andhra Aayurvedic Pharmacopoeia should be published by the Government and a small committee should be constituted to collect and consolidate the data required for the purpose.

(10) A committee, consisting of the representatives of the Aayurvedic industry, Vaidyas, Hakims, and a few modern pharmacists, should be appointed to investigate into the requirements of the Andhra State in respect of the supply of drugs and medicinal requisites of the State.

(11) Facilities should be provided to the manufacturing firms and Aayurvedic physicians for procuring excisable and poisonous drugs as those given to manufacturing firms and practitioners of modern medicine.

(12) Aayurvedic pharmacists should be trained in two grades called (a) Oushadha Vidya Praveena, with a course of three years, and (b) Oushadha Kalpana Kusala, with a course of one year. The qualification for admission and the syllabus for these two grades should be worked out by the sub-committee. The higher grade of pharmacist shall be trained in colleges, and in institutions approved by the Government for the purpose. The second grade of pharmacists, the Oushadha Kalpana Kusala should be trained in large numbers in the pharmacies attached in the Aayurvedic teaching institutions, including the Gurukulas and Vaidyas recognised for the purpose, and in the factories of recognised manufacturers.

(13) The Commissioner for Government Examinations, Andhra State, should conduct examinations for the two grades of pharmacists once in 6 months. The fee for examination should be Rs. 10/- for the 1st grade and Rs. 2/- for the 2nd grade.

(14) The pharmacists of both grades should be registered in the alphabetical order stating their qualifications. The fee for registration should be Rs. 6/- only for both grades.

CHAPTER 11

SWASTAVRUTTAM * (PERSONAL HYGIENCE)

*"Sarvamanyet Parithyaajya
Sareeram Anupaalayeth."* (Cha. Ni. Ch. 6.)

"Giving up everything else, one should preserve one's own body." This is the most important dictum of Aayurveda.

By "hygiene" is meant that branch of science which teaches us the laws of health and the methods of their observance. It is generally called environmental hygiene. This is also called "sanitation." A large number of diseases which affect us could easily be avoided by a proper knowledge and observance of these laws of hygiene. In a broad sense the science of hygiene teaches us how to prevent diseases by eliminating the cause of these diseases.

INDIVIDUAL RESPONSIBILITY

Every individual should endeavour to prevent diseases by attention to domestic and personal hygiene. As a village is made up of a number of individuals, if any person in the village realises the importance of prevention of diseases, it will greatly help to promote the health of the people.

* This chapter has been contributed by Sri D. Narayana Rao, Bhishagwara, A.L.I.M., Guntur.

CHAPTER 11

HEALTH THE GIFT OF GOD

The dirty habits of an individual not only does harm to himself but also affect his neighbours.

HYGIENE IN THE CURRICULUM OF BASIC EDUCATION

In ancient India, general principles of hygiene and medicine were taught to every student. They were included in the curriculum of general education. E. B. Havell in his "Aryan Rule in India" observes, "There was an organised system of popular education. Children began by learning the alphabet. At seven years of age, they passed on to the study of the Saastraas or science beginning with grammar. The second Saastra was the science of arts and crafts (Silpa); the third was the medical science (Chikitsa), the fourth was logic (Hetu) and the fifth, the principles of philosophy (Aadhyathmika Vidya). All these departments of knowledge formed a system of general education for laymen of all sects. The Indian educationists of the early centuries seem to have devised a system of public institutions far superior to those of the present day."

This system of general education for laymen of all sects seems to have been in vogue until the reign of Akbar, which is evident from the following passage from Rev. Keaty's "Ancient Indian Education." "Every boy ought to read books on morals, arithmetic, agriculture, mensuration, geometry, astronomy, physiognomy, household matters, the Riyahi (medicines, etc.) the rules of government, logic, the Tabi (physical sciences) and Ilahi (the knowledge of God or theology), history, etc. In studying Sanskrit, the students had to learn Vyakarana (grammar), Nyaya (logic), Vedaanta (philosophy), and Patanjali (Yogic excerpts)."

A fundamental knowledge of these sciences and arts was necessary for the attainment of the four aspirations of man viz., the Purusharthas or Dharma, Artha, Kaama and Moksha.

HEALTH THE GIFT OF GOD

Manu, the Hindu Law-giver says, "Aatmaanam Satatam Rakshet Daarairapi Dhanairapi." "Always protect yourself even in preference to your wife and wealth." The Aayurvedic or the indigenous methods of prevention of diseases is primarily based upon the

regulation of Dharma including all social and civil laws, and upon the training of every individual himself against the attack of diseases by developing his bodily resistance ("Vaishnavior Rakshana Kajti—the ingenuity).

*"Nityam Sannihitaamitram Sameekshya Aatmaanamaatmayaam
Nityam Yuktah Paricharedichehannaayura Nitwaram"*

(Charaka Sootra. Ch. XVII),

"The enemy (disease) is always in one's proximity and as such, one endowed with wisdom, should, therefore, observe the conduct of oneself with concentrated attention on desiring to have a long life."

DAILY AND SEASONAL HABITS

The principles of health have been, in Aayurveda, dealt under two sections viz. (1) Dina Charya or those that should be observed daily in general and (2) Ritu Charya or those that should be observed according to the different seasons in particular. Both the classes comprise personal hygiene, which consist of the principles of the conduct of life and the practice of hygiene that are conducive to health and longevity. These comprise the daily hygienic life of an Indian. Every individual is responsible for the entire cleanliness of himself, his house and surroundings. When once this is recognised and carried out, he is sure to attain freedom from sickness.

Personal cleanliness of the body, of dwelling apartments and of the surroundings, good habits, good food, exercise, recreation and sleep are all important factors in determining the strength, lustre happiness and long life of every individual ("Bala Varna Sukha Aayusham")

The principles of the superiority of the cleanliness was realised most clearly by the ancient Hindus who codified these laws of cleanliness, preached and practised the same with thoroughness and religious devotion. We shall now, with this short preliminary, pass on to consider some of the laws and ways that keep one healthy.

DINACHARYA

Aayurveda ordains, that everyone should rise early in the morning for maintaining good health and to prolong one's period of life.

"Brahma Muhoorthe Uttishtee Swastha Rakshaardham Aayus-hyah." By rising early in the morning, we will not only have time to look to the cleanliness of the body, but we can also be ready for our work before sunrise and thereby save some time every day for doing our business instead of working in the hot midday hours which is highly injurious to health in a tropical country like ours.

"Sooryodayecha Astamayecha Sayanam Vimuchyati Srirapi Chakrapaaninam." "Lakshmi, the Goddess of Wealth, will forsake even her husband, Vishnu, if she finds him asleep at sunrise and sunset." The same principle of early rising may not be suitable to health in cold countries. Brahmuhoortha Kaala is 48 minutes before sunrise on any day. What has been observed by Franklin in the very familiar lines "Early to bed and early to rise makes a man healthy, wealthy and wise" has been realised some centuries before the birth of Christ by the ancient Rishis of Aaryaavarttha. The Aayurvedic texts no doubt realise that the principles of early rising does not apply to unhealthy and sick people who can be allowed to sleep then also for recovery.

SUCHI (CLEANLINESS),

The best of way preserving health is to be scrupulously clean. "Atyanta Malinaha Kaayah Navachidra Samanvitah Sravatyeva Divaaraatrou." The physical body consisting of the nine openings (or outlets and inlets) is full of impurities that are secreted through them day and night.

The motto that "Cleanliness is next to godliness" has been ingrained in the daily habits of Indians. They are adopted daily, consciously or unconsciously, and needs no training. To be clean is our righteous duty. But unfortunately, our national and ancient habits of cleanliness may appear superfluous and cumbersome to many of the modern educated youths who in their poor imagination, view themselves as refined, adapting or rather imitating the

modern and unsuitable habits of the other nations to the abandonment of the old and indigenous systems of cleanliness, simply to fall an early prey to all kinds of ailments.

CLEANLINESS — EXTERNAL AND INTERNAL

Dr. Arnold Roland, M.D., observes as follows regarding early risers:—"If we now consider the environments where the longest lived persons are found, we shall find that those who always live in the open air and also moderately, rising early in the morning and leading day by day the same regular life, have attained the longest lives." "Souchantu Dwividham Praakritam Baahyamaabhyantaram Tadhaam Mrijjalaabhyaan Kritam Baahyam Bhaavasuddhihi Tadhaa Param."

Cleanliness is said to be of two kinds, (1) external and (2) internal. External cleanliness is to keep the body clean (by baths etc.) while internal cleanliness is to keep the mind clean (pure). For the performance of religious duties, it was considered essential to have a clean (sound) mind in a clean (sound) body.

One, after rising from bed at Brahmamuhoortha, should attend to the calls of nature and should then attend to general cleanliness of the body for the removal of Malaas, the impurities, etc.

HYGIENE OF MOUTH

To begin with, cleanliness of the mouth forms the first step in the cleanliness of the body. Mouth being the chief entrance or the main gateway, as it were, to the body, it goes without saying that it always should be kept healthy from the attack of the enemies of health. Further the process of digestion begins in the mouth itself.

"Tatraadou Dantapunam." Next comes the (care and) cleanliness of the teeth. Āyurveda enjoins one to clean teeth with fresh twigs of a little finger's thickness and twelve fingers in length newly cut out of the trees—"Karishtikaa Pareenaah Mrijnagrado Mananam", of trees possessing of "Kashaaya Madhuraan Tiktam Katukam", astringent, sweet, bitter and pungent tastes—and made into a soft brush "Meidunaa Koorchakena." By the use of fresh

twigs, the question of infection does not arise. When twigs are not available "Kshoudra Vyosha Trivargaaktam Sathallam Saindhavamcha Choorena Tejovatyascha Dantaannityam Visodhayet", the teeth should be cleaned with (a compound powder consisting of) honey, powder Trikatu, Thriphala, and Irimada, Saindhava, Tejonati and oil, or this paste may be applied to the top of the brushlike end of the twig and the teeth cleaned each separately "Ekaikam Gharshayet Dantam", in a manner "Danta-maamsaryabhaadhayan" not to cause any hurt to the gums.* Different medicinal properties have been attributed to different Rasaas (tastes) in Āyurveda and as such according to the nature of the different diseases and according to the Dosha vitiated, twigs of different tastes have been recommended.

"Nimbaascha tikta sreshtam, kashaaye khadira sthadhaa madhooka madhure sreshta, karanjaha katuke tadhaa." Of the bitter trees, Nimba (Melia Azadirachta) is the best; of the astringent trees, Khadira (Acacia Katechu) is the best; of the sweet trees, Madhuka (Bassea Latifonaa) is the best and of the pungent trees, Karanja (Pongamia Glabra) is the best.

PROHIBITION OF TOOTH BRUSH

Persons suffering from certain diseases like indigestion difficulty in breathing, cough with bronchitis, fever, facial paralysis, thirst, inflammation of the mouth and also those who suffer from diseases of the heart, eyes, chest, head and ears are prohibited from using the (twig) tooth brush for cleaning their teeth. (Sus Chik. Ch. 24)

*Though the modern dentist says that the tooth brush should not be used horizontally, the brushes that are manufactured and those available in the market are made in such a way that they can only be used horizontally and thereby cause harm to the gums whereas the freshly made tooth-twig can be used vertically so as to allow us to clean each tooth one after another. Therefore, viewed economically, scientifically, and medicinally, from all the standpoints, the tooth-twig is highly desirable when compared to the modern tooth-brushes and pastes.

SCRAPING OF THE TONGUE

*"Timhamirlekshanam Roupayam
Souvarnam Vaarsha Mevacha
Tammalaapaharam Sastam Mridu
Slakshnam Dasaangulam
Mukhavairasya Dourgandhyam
Sopha Jaadhyaharam Sukham."*

The tongue should be scraped by a thin, smooth, and flexible foil of gold, silver or even of wood (preferably the twig itself) which should be ten fingers in length. Scraping of the tongue gives relief and removes the bad taste or swelling and numbness of the mouth.

GARGLING OF THE MOUTH

*"Gandoosha Madha Kurveeta
Sitena Payasa Munuhu."*

After cleaning the teeth and scraping the tongue, the mouth should be gargled freely a number of times with cold water. "Kapha trishnamalaharam mukhaanta suddhi kaarakam." Such repeated garglings of the mouth, while not only keeping the mouth clean, also reduces Kapha (excessive secretions in the mouth and thirst).

OILY GARGLING

*"Danta Daardhyakaram Mehyan
Sneha Gandoosha Dhaaranam"*

Susruta further advises that any day [after cleaning the teeth] oil should be used for gargling as it makes the teeth firm & brings

Unfortunately, Sneha Gandoosha or the gargling with oil [Tila Thaila] has gone out of practice simply to enhance the practice of the dentists. The purpose of Sneha Gandoosha may well be served by chewing every day after cleaning the teeth a tota of the seeds of

on a natural relish for food. There is no wonder that Indians are noted and praised by the Westerners for their best condition of teeth.

VYAAYAAMAM—EXERCISE AND MASSAGE

"Balaadhishtaanamaarogyam tasmaat balam yatnena paalayet." Strength is the seat (foundation) of health and, therefore, it should be maintained (preserved) by all means (at our command).

The great Saadhu, Professor T. L. Vasvani, said that body building is nation building. Therefore, any youth must consider that it is his duty to be strong (both in mind and body) and also to produce such children upon whom depends the future hope of India. If one individual is weak, as a weak link in a chain makes the whole chain weak, he makes the whole family and at large the whole nation weak. Therefore, it becomes necessary that every one

Tila. Dr. Harry Campbell very emphatically remarks in his "Fundamental Principles of Treatment" contrasting the condition of the teeth of the Englishmen when compared to those of the Indians, as follows:—"We have the worst teeth of any nation. What with our mis-shapen jaws, decayed teeth, long teeth, we make a sorry spectacle, one which strikes the foreigner directly he reaches our shores in a way not a little wounding to our national pride. It is a shameful and a humiliating condition of things;" and he further observes, "The poorest of the Hindu mendicants, when he begs a morsel of food, also asks for a cup of water with which he rinses his mouth. It is a part of his religion, to have sound, clean teeth, and to have bad teeth is a degradation from which he shrinks." Even the Commission that was appointed to enquire into the causation of cancer in the mouth, pronounced that the Indians were noted for the good and sound condition of their teeth. If civilisation means cleanliness, good character and long life, the ancient Indians were more civilised than the modern Indians who have learnt to drink bed-coffee and tea without cleaning their teeth. The Western hygienists of today have not yet decided as to the proper time for cleaning teeth. Some say that

of us must realise the responsibility and the necessity of keeping up our strength and health. Indeed, a weak man should realise and consider himself to be a burden not only to his family but also to society and that he is a great impediment in the general national progress.

THREE KINDS OF STRENGTH

Strength is said to be of three kinds, Sahajam, Kaalajam and Yuktikritam.

Sahaja (natural or inherited) Balam is that which is inherited by an individual by birth. Kaalaja (timely) Balam is that which is acquired by age, season or climate. As for instance, a youth will naturally be stronger than when he was a boy or when he will be an old man. In summer, generally people get weaker than during the cold season. Similarly people living in the cold climates are generally stronger than people living in the hot regions. Yuktikrita (acquired) Balam is that which can be acquired by a discretion in Aahaara (food) and Vihaara (regulation in the conduct of life) which includes Vyaayaamam (physical exercises) and Viraamam (recreation).

it should be the last thing to attend to just before going to bed at night, but others say that it should be just after taking food, but they do not insist that it should be done as the first thing immediately after getting up from bed and before eating or drinking at all. Imagine for a moment the magnitude of propaganda that would be required in a civilised country like America or Europe to preach to the people the advantages of cleaning their teeth immediately after getting up from bed and to see that it is enforced in every house by every man, woman and child as a religious duty and then one will understand the value of the immensity of the efforts made by the ancient Indian hygienists in enforcing some of these simple and clean habits even among the poorest classes of people inhabiting the remotest villages far away from the din and stir of the cities and towns, the so-called seats of civilisation. A weak woman with clean habits has a greater chance of prolonging her life than a strong athletic woman with modern habits living a reckless life disobeying the laws of social and personal hygiene.

DEFINITIONS OF VYAAYAAMAM

1. "Sareeraayaasa Jananam Karma
Vyaayaama Samgnitam."

Susruta, who was a professor of anatomy and surgery, defines Vyaayaamam as any act or movement of the body that causes fatigue (to the body). In this broad definition, games, walks, horse-riding and even manual labour done in the course of a day's professional duties may be included. Though he states in his explanation that the development of a beautiful body, formation of muscle groups, power of endurance and other good qualities can be derived as a result of Vyaayaamam, his definition itself is quite general.

2. "Sareera Cheshtaa Yaa Cheshta Sthairyaadha
Balavardhini Dehavyaayaamam Samkhyataa."

Medical definition of Charaka, who was mainly a professor of medicine, makes a distinction between bodily exercise and mental exercise and gives the definition of Vyaayaamam as such action of the body as would promote steadiness of the limbs and strength of the body (bodily exercise).

3. Yogic Definition :—The Yogi to whom the development and control of the fickle mind is more important than the development of the material body, which to him is after all a perishable object, has his own definition of Vyaayaamam. According to him, the word Vyaayaamam is made up of Vi+aa+Yaama, which means the intensive development of self-control (Yaama) or the control of the mind over the body. Here the body is more or less a vehicle and is not of much value by itself.

4. Professional Definition :—"Tulaabhrama gunaakarsha dhamraakarsha naadhibhi aagaamo vividhaamgaanam Vyaayaama iti keertitaah." Those who study and practice Vyaayaamam as a special subject and profession offer this definition for it in their own way :—"The intensive bending (Vi+aa+Yaama) of the body in various directions as in performing bodily exercises such as swinging heavy weights, pulling bow strings, bending bows and performing

various other stunts, in which the different parts of the body are bent intensively is called Vyaayaamam."

Exercises are generally classified as active, passive and mixed. Amongst active exercises we have walking, running, leaping, dancing, and games as cricket, football, hockey, chadugudu etc. Exercises should, as far as possible, be carried out in the open air.

Walking is one of the most healthy of all the exercises and may always be practised. The actual amount of energy expended in walking depends largely on the speed than the distance travelled. But Susruta says that excessive walking weakens and emaciates the body while a gentle walk or stroll which is not very fatiguing to the body tends to improve the memory, strength, digestive power, the functions of the sense organs and an increase in the span of life.

Vaatsyaayana gives a detailed description of indoor and outdoor games and excursions to gardens, fairs, festivals and pilgrimages, which deserve study and recognition. The four definitions given above, varying according to the understanding of students and practitioners with different aims and objects in life, give us an idea of the manner in which the Indian athletes and scholars have understood the utility and scope of Vyaayaamam in their daily life. Savage development of the body had no attraction to them. Hanumaan, who was a perfection of muscle control, who had the capacity of diminishing to the minutest size (Anima) and tremendously expanding to the size of a mountain (Mahima) at his desire, is the ideal or Aadarsa Purusha* of the Indian athlete.

It will thus be seen that the Indian system of physical education requires a very careful study in order to understand its scientific value.

Mere development of the physical body is not the end and aim of the Hindu science of Vyaayaamam. It includes the control of

* Hanumaan is considered as Vaayu Putra, the son of the Wind God. Vaayu, though unseen, has tremendous power and is the source of all the strength of the athlete. If a man like the late Prof. Kodî Rama Moorthi could support an elephant on his chest, it was due to this power of controlling the Vaayu inside his body. This word *Vaayu* is identical with the word "Bios" meaning 'life'. Vaayu also denotes wind, which has a wider meaning.

mental state called Yoga. "Yogachitta vritti nirodhah" The practice of Asanaas (postures) which relates to the physical activities of a Yogi, is only one of the eight processes called the Ashtaangaas, the eight divisions of Yoga that are essentially required for the attainment of self-control and self-realisation.

BENEFICIAL EFFECTS OF EXERCISE

"Sareera pachayaha kaantihi gaatraanaam sutibhaktataa, deep-taagnitwam anaalasyam sthiratwam laaghavam mrijaasrama klama pipaasa ushna seetaadeenam sahishnuta aarogyam chaapi paramah vyaayaamaat upa jaayate." So says Susruta regarding the beneficial effects of exercise, i.e., Vyaayaamam. It makes the body stout and strong, helps the symmetrical growth of the limbs and muscles, improves the complexion and the digestive fire (power), prevents laziness and makes the body light and glossy, firm and compact.

It gives the power of enduring fatigue and weariness and the variations of temperature (cold and heat), thirst etc., and ultimately leads to a healthy existence.*

By a wise and regular use of our muscles, they increase in size and get stronger. Want of proper use or their improper use makes them decrease in size and atrophy. Therefore, every part of our body must be properly exercised if we wish to be healthy. Vyaayaamam contributes to the strength and vitality of our body as follows :—

In sitting, we breath slower than when we do some hard work. When we breath fast, we take more air into the lungs and the more pure air we take into the lungs, the better purified will be the blood. During exercise, the heart works faster and pumps the purified blood all over the body more rapidly as a result of which the waste matters in the tissues (Malaas) are removed more rapidly as a result of the blood washing them out of the body more speedily. By accelerating the circulation and respiration, the worn-out tissues are

* Lowered vitality, which renders an individual powerless to resist the onslaught of disease, is the principal cause of disease. By Vyaayaamam, this lowered vitality is raised.

disintegrated and their speedy removal is effected and the formation of new tissues is facilitated. Thus physical exercise hastens both waste and repair of the tissues.

All kinds of exercises have a common essential feature in them viz. the production of the contraction of the muscles. Ludwig and his followers have demonstrated that the contraction of the muscles produces an increased supply of blood in them. When the muscle undergoes contraction, impulses are conveyed to the splanchnic nerves which regulate the vaso-motor system, as a sequel of which the internal organs supplied by the splanchnics contract and consequently blood is sent to the periphery of the body. By an exertion caused by Vyaayaamam, abundant perspiration is produced and thereby the kidneys are indirectly helped and benefited. The congestion of the internal organs will also be prevented as more blood will be despatched to the periphery of the body.

“Vyaadhayo nopasarpanti simha kshudra mrigaa iva.” Just as a lion is not approached by the minor animals, a gymnast is not approached by diseases.

“Vayo roopa gunaihi heenamapi veeryaet sudaassanam.” It makes (even) an aged and a deformed man (young) good-looking.

“Na chaastisadrusamtena keichit sthoulyaaapakarshanam.” There is nothing equal to Vyaayaamam that can reduce the bulkiness (plumpness) of the body.

“Vyaayam kurvato nityam virudhamapi Bhojanam vidagdham avidhagdhamvaa nirdosham paripachyate.” If physical exercise is indulged daily, even the food which is unwholesome, over-cooked or under-cooked is digested in proper manner (without causing any bad effect.)

VYAAYAAMAM IN RELIGION

Not only by professional methods but by religion also, Vyaayaamam is encouraged in India. Even today, we find women going round the Aswatha (Pepal) tree 108 times a day, generally the sickly and the barren. The different postures mentioned in Hatayoga are said to relieve many diseases of the body as well as of the mind. Breathing exercises, like Praanaayaama, no doubt serve the purpose of massage to the muscles of the lungs and really do much good to

the respiratory as well as the circulatory systems. The Suryanamas-kaar is an excellent form of open exercise in the name of religion.

THE EXTENT OF VYAAYAAMA TO BE PERFORMED

Regarding the practice of exercise, many instructions have been laid down in the Aayurvedic texts, viz., how far it should be performed, who should perform, who should not etc., (for a detailed description of which space does not permit *)

“Praaksramaah vyaayaama varjnesyaet.” One should retire from physical exercise before he gets fatigued or exhausted and is advised to carry it on—“Balasyaadhena kartyo Vyaayaama antyoto angadhe”—only to the half extent of his capacity as otherwise it may prove fatal.

DEFINITION OF BALARDHA

“Hridisthanashitho Vaayu Yadaa
Vaktram Pravartate.”

That amount of exercise which makes the Praana Vaayu come out through the mouth i.e. as soon as hard breathing would set in, as to necessitate him to open his mouth for breathing in or out is known as Balardha exercise. According to some “Lalaata dese naasayaam gaatrasamdhishu kakshayoh swedassan Jayate tena balardha venirdiset.” The appearance of perspiration on the forehead, nose, joints, axillae (and dryness of the tongue) are the symptoms which indicate that one has taken Balardha physical exercise. Exercise must not be overdone or carried to exhaustion. It should be remembered that one should feel refreshed and not fatigued when the exercises are completed. If it is carried beyond the powers of the man's vitality, it may render him to a lethargic langour bringing on fatigue, fever and lower the general resistance of the body, inducing a collapse of his vital energy. Therefore, it has been advised that a man seeking his good should indulge in exercise every day only to half the extent of his capacity, as otherwise it may prove fatal.

*Readers who are interested in more details are advised to refer to “Vyaayaama Saasthra” by Dr. A. Lakshmipathi.

Exercise is beneficial specially to a strong man accustomed to the use of emollient foods (abounding in proteins) in all seasons of the year (Sadaa Pathyo Balinaam Snighdha Bhojinaam) and particularly beneficial and indispensably necessary for such during the seasons of winter and spring (Seetha Vasanthecha Teshaam Pathyātama Smritah,) and in other seasons, should be indulged in slightly (Manda Veva Tato Anyadhaa).

DANGERS OF EXCESSIVE EXERCISES

Consumption, haemorrhage, thirst, pthisis, aversion of food, vomiting, illisiveness, weariness, fever, cough, and asthma are likely to arise as a consequence of physical exercises in excess. Exercise is forbidden after a meal and after the fatigue of a sexual intercourse, in a fit of vertigo and in respect of persons suffering from the above diseases.

MASSAGE

“Tatkritvaatu Sukham Deham Vimridneeyaah Samantataha.” After the completion of the exercise, one should have his whole body well-massaged or shampooed (without causing harm) until it gives a pleasing and comfortable sensation in the limbs.*

Massage, which is a post-operative treatment of Vyaayaamam, forms a preliminary measure of Abhyanga as Abhyanga consists of lubrication, rubbing and bath and forms an important method in preventive as well as curative treatment of many diseases. Massage has been in ancient India developed as an art and was included in the 64

* According to Aayurveda, physical exercise and massage are very closely related with each other. No hard or fast lines could be drawn between these two branches. If we wish to develop the body of men who are too delicate to undertake any kind of physical exercise, we can do the same for him by suitable massage. A lean man can be made plumpy and a stout man lean by massage as well as by physical exercises. So great is the inter-relationship between these two that Aayurveda considers them as inseparable.

Kalaas or arts hundreds of years before Peter Ling, who was the originator of the Swedish gymnastic movements.

Massage is generally divided into three main divisions viz:—

1. Dehamardanam or athletic massage for development of strength and formation of the body. This is practised in the Taa'imkhanas.
2. Samvaahanam or medical massage. This includes pressing of the limbs comfortably in a soothing position when the subject is to retire to bed.
3. Kesamardanam or shampooing the hair.

The various processes of dextrous manipulations in massage are useful in the treatment of various diseases. They are described in Aayurvedic texts and the same were prescribed in India from time immemorial and these three sub-divisions take an active part in the treatment.

The important of these are Amlapaanam (lubrication), Gharshanam (friction), Latavestanam (light kneading), Prapedanam (deep kneading), Angulee Peedanam (kneading with the cushion of fingers), Udveshtanam (wringing), Mundhanam (muscle rolling), Paripeedanam (petrissage), Sandhichalanam (joint movements), Landamsikam (pulling), Harshanam (vibration), Praharanam (percussion), Chedyam (hacking), Vaadyam (tapping), Aasphalanam (clapping), and Maarjanam (sweeping). These are some of the operations which when dextrously performed produce a large variety of feelings which have great value in the treatment of certain diseases.

By massage, artificial hyperaemia is produced due to the kneading of the muscles and there will be an increased circulation of arterial blood in the muscles of the body. By this increased supply of arterial blood, more oxygen and heat are generated through them which results in the general increase of the process of oxidation. Massage is an excellent thing in chronic metabolic diseases as it helps the resorption of waste products and augments the processes of oxidation and as such in cases of obesity and also diabetes, it is of high value and is of a special value in wasting diseases as consumption.

In the case of healthy people who can afford to be massaged daily, the vital functions can be rendered more active and youthfulness can be prolonged. For those who cannot afford to be massaged by others, they can do it for themselves by friction, rubbing the body just before going to bed and early in the morning.

VIRAAMAA—REST AND RECREATION

As for the most valuable benefits of recreation nothing requires any dilation as it is as much a restorer of health as Vyaayaamam. In recreation, it is the mind factor that influences the physical body in being sound. One can have recreation in parks, swimming pools, in playing, in hunting, in excursions and in the shades of tropical giant trees.

The end and aim of Vyaayaamam is not merely, one should remember, the physical development of the body. To a physical culturist in India, wild animals and savages who enjoy perfect health are not the ideals, but it is only a means of obtaining the mental culture which enables one to acquire perfect control of the mind and body.

*“Vayobala Sareeraani
Desa Kaala Asanaani Cha
Sumrakshakuryaat Vyaayaamam
Anyathwa Rogamaapanooyaat.”*

In performing Vyaayaamam, the age, the strength of the individual, the constitutional tendencies (the nature of) the country, the climate or season and the food to which the individual is habituated should be considered. Indiscriminate performance of exercise without taking into consideration the above will result in diseases which is to be prevented at all costs.

IMPORTANCE OF SLEEP

Sleep is as equally important as food for the proper nutrition and maintenance of the body.

*Nidraayattam Sukkham Dukkham
Pushtih Kaarsyam Balaabalam
Vrishataa Kleabathaa Gnaanam
Agnanam Jeevitam Nacha.* (Charaka Sootra XXI)

Happiness or misery, plumpness or leanness, strength or weakness, knowledge or ignorance, in short, the very life or death depend upon sleep.

Sleep is the most absolute form of rest for the body and the mind and it is essential alike in health and sickness. In sickness, the weakened state of the body requires long periods of sleep. Sleep retards the working of the brain. It slows the metabolic processes (Agnis) in the body and, therefore, lessens the consumption of fuel (food). Too much sleep induces sluggishness and stupidity. Too little sleep taxes the nervous system and tends ultimately to shorten life by calling upon the vital energies of animal life that sustain the body and the senses.

PHYSIOLOGY OF SLEEP

Keeping awake at night causes dryness (Rookshata) of the tissues i. e., it consumes the fat and disturbs the lubrication. Sleep in day time increases the fat in the tissues.

Just as in food, so also in sleep, the Trigunaas produce their physiological and pathological effects.

Rajas is due to Rosha (Roshaamsatwaat) (i.e.) to over-activity or irritability. Tamas is due to Moha-Mohaam Satwaat, i.e., to inertia. Sleep is due to the excess of the attribute of Tamas.

According to the Saankhya theory, which is accepted by Aayurveda, the human body is said to consist of three constituents.

(1) Stoola Sareera—the gross body—which is made up of skin, flesh, hair, tendons, bones, bone marrow, organs, etc., which are derived from the ovum and sperm made of Panchabhootas. This is the physical or material body.

(2) Linga Sareera—the subtle body—which consists of the following 18 constituents, namely. (1) Mahat (intelligence), (2) Ahankaara—ego, (3) Manas—mind, (4) to (8) the five organs of sense, (9) to (13) the five organs of action and (14) to (18) the five Tanmatras—or subtle Bhootas, the five Bhootas in the prebhootic stage. The Linga Sareera does not die with the man but it is transmitted along with the Jeevaatma to another body to which it transmits the hereditary qualities of the previous life. These inherited tendencies which are called Vaasanaas are responsible for the Saa-

twika, Raajasa and Taamasa temperaments of individuals transmitted from the parent to the seed.

(3) Kaarana Sareera—which consists of the ultimate real—the Aatma—which is qualityless and whose qualities are all due to its attachment to the body through the mind which acts as a clutch. It is called Jeevaatma or Karma Purusha.

In deep slumber (Shusupti), the Kaarana Sareera alone maintains the life processes. In the dream state (Swapnaavasta), the Linga Sareera is active and in the waking state (Jaagrata-Avasta) the gross body—the Stoola Sareera—is also active.

Oil bath, massage, contentment, pleasant scents, pleasant sounds and ointments to the eyes and to the head are among those which induce sleep.

—Charaka. Sootra—Ch. XI.

VARIETIES OF NIDRA

Varieties of Nidra are differentiated in man according to the causes which produce sleep.

(1) Nidra may be caused by Tamoguna—natural inertia. Death is considered as Nidra occasioned by Tamoguna.

(2) Nidra may be caused by excess of Kapha. The three fundamental principles of Vaata, Pitta and Kapha have to be studied in order to understand this.

(3) Nidra caused by tiredness to the body and mind. When the mind is tired, the senses are withdrawn from the objects and then we may get sleep.

(4) Nidra caused by external causes such as injuries to head.

(5) Nidra caused as a complication during the course of the disease.

(6) Nidra caused by very reason of nightfall.

Of all the varieties, sleep caused naturally by nightfall improves nutrition of the body.

SAMAADHI STATE IS NOT NIDRA

The Samaadhi State of a Yogi is not sleep but it is state of super-consciousness (Pragna) which is obtained as a result of Tapas—concentration and meditation. In the case of sleep, there is excess

of Tamoguna or inertia, whereas in Samaadhi, Tamoguna is conquered and pure Satwa or intelligence prevails.

*Yaa Nisaa Sarva Bhoothaanaam
Tasyaam Jaagrathi Samyami
Yasyaam Jaagrati Bhoothaani
Saa Nisaa Payathe Muneh.*

“The sage is awake to things over which the ordinary man sleeps and the mental eye of the sage is open to truths shut out from the common vision of ordinary man, and vice versa. What is real for the masses is illusion for the sage.”

CONDITIONS FAVOURABLE FOR SLEEP IN DAY TIME

*Geethaadhyayana, Madya Sthree
Karmabhaaraadhwakarshitaah, Ajeerninah
Kshatan Ksheenaah Vruddhaa
Baalaasthathaa abalaah, Thrishnaatee saara
Soolaartha, Swaasinaah, Hikkinaah
Krisaah Patitaabhihatonmattaah
Yaana Prajaagaraah Krodha soka
Bhayaklaanta Divaa swapnochitaaschaye
Sarva yethe Diwaaswapnam Severan
Sarwakaalikam, Dhaatu saamyamhi
Tada hi Yeshaam
Balam Chaapi upajaayathe
Sleshmaa Pushnaathi Chaangaani
Stairyam Bhavati Chaayushaah.*

—Cha. Sut. Ch. XXI.

He who is weakened by singing, reading, drinking, sexual acts, over work, carrying heavy loads and travelling by walk, he who suffers from indigestion, wounds, loss of flesh, and the aged, the child, he who is wanting in strength, he who suffers from thirst, diarrhoea, pain, Swaasa (hard breathing), hiccough, insanity and exhaustion due to horse riding or riding on other vehicles, and he who keeps awake at night, he who is afflicted by anger, sorrow, fear, and he

who is accustomed to sleep in day time—these may sleep in day time. By doing so, normal condition of the tissues or equilibrium will be restored. Sleep gives them strength, makes them plumpy, gives steadiness to muscles and also prolongs their life.

*“Ghreeshme Chaadaana Rookshaanaam
Vardhamaane Cha Maaruthe
Raathreenaam Chaathi Samkshepaath
Diwaaswapnam Prasasyathe.”*

Sleep in day time is strongly recommended in summer, owing to debilitating dry heat of the sun and increasing winds—Vaayu—and also on account of the very short duration of nights.

SLEEP IN DAY TIME PROHIBITED

*Medaswinah Sneha Nityaah
Sleshmalaah Sleshmaroginah Dooshi
Vishaarthasya Divaa Nasayeeran Kadaachana.
—Cha. Sut. Chap. 11.*

Stout people and people undergoing treatment by the use of Sneha or oils, people of phlegmatic temperament and people suffering from the phlegmatic diseases and those suffering Doshee Visha or certain poisons should never sleep in day time.

JUDICIOUS SLEEPING

*“Thasmaath hithaahitam Swapnam
Buddhvaa Swapyaapth Sukham Budhah.”*

One shall, therefore, study fully the suitability or otherwise of sleep and act with discretion.

Children require much more sleep than adults. Upto 12 years of age, they may require 9 to 10 hours of sleep. In adults, 7 to 8 hours is quite ample. Sick people and convalescents require more sleep than the healthy.

“Early to bed and early to rise makes a man healthy, wealthy and wise.” This maxim is more applicable to India than to other countries. Artha Saastra, Sukraneetisaara and Kaamandaka Raa-janeetisaara recorded the time-tables for the king in those days. All those books agree in stating that one should go to bed at 9 p. m. (i. e.), at the end of the first Yaama after night-fall, and should get up from bed during the last Yaama (i. e.), after 3 a. m. Aayurveda prescribes Braahma Muhoorta for getting up from bed.

*Brahma Muhoorte Uttishteth
Swastho Rakshaardham Aayushah.*

A healthy man should get up from bed at Braahma Muhoorta, if he wishes to protect his health Braahma Muhoorta is 48 minutes or 2 Ghatikas before sun rise. This gives him ample time, to answer calls of nature regularly early in the morning and to be ready for his daily work.

Any person who is engaged in special studies will benefit by getting up even earlier and studying in the calm hours of early morning instead of rolling lazily in bed at that time.

The system of holding offices to work during the hot hours of the noon is not good for the health of the people in India. In my opinion, this is responsible for the degeneration of national health to a great extent. As a rule, all business houses are closed between 12 noon and 2 p.m. Judges, lawyers and high officials in the Secretariat were compelled to work in these hot hours whether they liked it or not during the British regime. But now the old system of having offices in the morning and evening should be restored. The encroachment on time for urgent business should be towards early hours of the day and late hours in the evening and not during midday.

Children should be educated to rest and even to sleep during midday instead of being made to sit on benches for their studies.

Disturbed or excited tissues are restored to their normal equilibrium by sleep. Strength that is lost by work is restored by rest just as the voltage of a motor battery is restored by working the dynamo. In students, whose growth is of primary importance

one has to lay very great emphasis on the importance of rest at midday in such a hot country as India. The pig manufactures rich fat in its tissues from the useless food materials (Amedhya) that it eats. This is attributed more to the habit of carelessly sleeping for long hours in the day time than to the quality and quantity of food that it eats.

*Achintanaaccha Kaaryanam
Dhruvam Santarpanena cha
Swapna prasangaaccha Naro
Varaaha iva Pushyati.*

Charaka-Sootra. 21. 4.

The action of sleep on the physical and mental faculties thus requires a very careful study by modern scientists.

CHAPTER III

DINACHARYA AT THE AGE OF 75*

The *Ayurvedic Encyclopaedia* is intended to be a commemoration volume of my 75th birthday. I thought it proper to include here an article on my Dinacharya at the age of seventyfive.

6 A. M to 8 A. M. I get up early in the morning from bed between five and six with a prayerful mind. The first thing I do is to clean the teeth. I use only ash from the hearth. I have complete set of artificial teeth. I clean my tongue by scraping it with a strip of palmyra leaf. I gargle the mouth freely with cold water. I then have a shave and go to the latrine to answer the calls of nature. These three items take about 20 minutes.

I then take one and a half cupfuls of Ragi congee (12 ounces) with one and a half cupfuls of buttermilk and one or two bits of lemon or other pickle.

I then have massage for one hour for the whole body including the head. A healthy and strong young man, who has been specially trained in the art of massage by me, is employed for this purpose. After massage, I do vigorous exercise with a Gada weighing 28 lbs for 8 or 9 minutes. I swing it over my shoulders, and back with both hands 25 times. Steadying the Gada with both hands in front of me, I concentrate my attention and take deep breaths steadily, counting numbers upto 60. This is my practice of Praanaayaam.

* By Dr. A. Lakshmipathi, B.A., M.B. & C. M., Bishagrathna.

I then have a bath in plenty of cold water, washing the body with a paste of green gram flour and water; I have never used any soap for bathing for the last 30 years. During the bath, I have brisk exercise of head movements for 2 or 3 minutes such as hand circling and chest slapping. After drying the body with a towel and putting on my usual dress of a Dhoti and shirt, I lift up with each hand a Santola made of stone weighing 28 lbs. straight over the head and move it up and down 6 times with each hand. Then with a concentrated mind, I lift the stone straight up with the right hand and keep it steady in the highest position counting numbers up to 60. This is repeated with the left hand. The stone lifting takes 2 or 3 minutes daily. My object in dividing my exercises into 3 parts with an interval between each set is to avoid strain. All the 3 sets of exercises together do not take more than 5 or 6 minutes. These exercises help me physically and mentally to feel that I am keeping vigorous and strong. My weight has been keeping more or less steady at 160 lbs. for the last 10 years. After the bath and stonelifting, I sit in a quiet room and read aloud one chapter in Bhagavat Geeta daily. After this, I take one glassful of thin buttermilk and go to the office room which is in the front portion of my house.

8 A.M. to 11 A.M. I see a few patients who may be waiting to consult me. I have given up working for the sake of earning money. But, I am always at work reading or writing books or articles on Āyurveda. I spend my time in the office usually up to 11.

I take my mid-day meals at 11 a.m. "*Satam Vihaaya Bhoktaavyam.*"

11 A.M. to 2 P.M. "Give up one hundred things and have your food at proper time". This is a slogan that I learnt from Babu Saheb Dr. M.S. Paranjpe of Digres, Yeatmal, Berar. I always have my food punctually at the stated hours. If friends are waiting to see me, I ask them to sit with me at the dining table and finish the business for which they have come. But I will not allow myself to be detained by them from having food at the proper time.

My mid-day and night meals are almost the same. Three ounces of broken wheat and three ounces of unpolished red rice (Saali) are mixed together and the mixture is cooked with plenty of water. This is just enough for me. The mixed diet was started when the rationing of rice was introduced in Madras and I have been conti-

nuing it. I prefer to have a little less than what would satisfy my hunger, I take whatever is given and I have no preference for anything special. The meals usually consist of 3 or 4 courses—Dal, curry, Chutny, Saambar (vegetable soup), Rasam, (pepper water with tomatoes) and buttermilk of the South Indian pattern.

On the whole, I take 6 ollocks or 48 ounces of cow's milk in one day in the form of buttermilk, I do not now take milk as such. The milk is boiled well and converted into curd to which equal part of water is added and churned well into buttermilk, but the butter is not removed, I take the buttermilk as follows;—

A tumblerful or 10 ounces with Ragi conjee at 6 a. m., 10 ounces after bath at 8 a. m; 10 ounces with meals at 11 a. m; 10 ounces at 3 p. m. with a slice of leaf-bread weighing one ounce; 10 ounces at 7 p. m. in the train on my journey back to Madras from Avadi; and 10 ounces with meals at night (i. e) between 8 and 6 p.m. After mid-day meals, I do some light reading or attend to the postal correspondence upto about 1 p. m. and I go to bed from half to one hour between 12-30 and 2 p. m.

2 P.M. to 8 P.M: At 2 p. m: I generally get up from bed and attend to correspondence or office work such as signing letters or giving instruction to the office staff regarding the work in the afternoon, At 2-30 p. m. I go to the latrine once again. I then have a wash and dress myself and get ready to go to the train for Arogya Ashramam at 3-45.

The Arogya Ashramam is at Avadi at a distance of 13 miles by train from the City of Madras. It encloses an area of about 300 acres on an elevated plateau with beautiful scenery all round. There is an extensive mango garden and an area of about one hundred acres of land fit for vegetable gardens and for paddy cultivation.

I have intended to develop this area into a health resort near Madras, with a few cottages, for patients who wish to live there for rest and recoupment of their health. I have endowed it to the public as a charitable trust. Ten or twelve families of Harijans are now settled on this land.

I reach Avadi by 4 00 p. m. by train and walk around the place for about 2 hours (i. e.,) upto 6 p. m. or 7 p. m. It will cover a walk of about 5 or 6 miles daily. I only supervise the work of

the labourers for the day and make arrangements for the payment. This gives me a sort of happiness, because it provides for the maintenance of the families of these poor Harijans, who toil the whole year from day to nay, but are yet unable to get a square meal and a decent cloth to wear. Their children are almost naked during all the seasons. We have yet to go a long way before we can say that we are living in a welfare state.

The long open-air walk and the great variety of the agricultural operations that I witness act as a refreshing tonic on me in spite of the constant handicaps due to the vagaries of the fickle seasons. I get into the train at Avadi about 7-00 p.m. In the train I take one slice of leaf bread weighing an ounce and 10 ounces of butter-milk which I carry with me. I feel greatly refreshed after this and I do not feel tired when I reach home between 8 and 9 p. m.

I sometimes say to myself why I should waste 2 or 3 hours a day on walking, but I found by experience that walking is the best exercise that a man can have at any age. I feel satisfied when I remember the Stoka from Charaka.

*"Sarvamanyat parityajya
Sariram anupalayeth
Thaṭha shaavehi bhaavaaham
Sarvaabhaavaḥ sareeram.*

"Even at the risk of giving up everything else, you should protect your body, for if your body does not exist, everything that exists is non-existent to you".

8 P. M to 10 P. M.: I have the night meals at 8 p. m. almost exactly like the mid-day meal. After meals, I have some light reading and I go to bed punctually at 10 p. m. I have massage to the feet for 10 minutes with gingely oil at night daily. For the last two months, I have been teaching a girl typist of my office English grammar for half an hour, before going to bed at night. I have now given up hearing the news on the radio at bed time, but I read the daily newspaper in the morning.

I enjoy good sleep. I sometimes get up about 4-30 a. m. and do some writing work when I feel inspired.

"Take it as it comes and do your duty as best as you can" This is my guiding principle.

I always keep in my mind the Telugu verse from the Mahaabhaarata.

*"Jarayu Mretyuleni Janunatlu Praajhumdu
Dhahamu Vidya goorpa Gadavavalayu
Dharma Maachaarimpavalayu
Mretuche Talapatti Dudwa Badina Vaane Bole.*

"A wise man should earn money and wisdom like one who has nothing like old age or death. But he should, at every moment, do his duty to society (Dharma), as if he is always dragged by the head by death, which is ever imminent."

By God's grace, I have a contented temperament with abundant, optimism and by His grace, I am also blessed with good children, who give me no occasion for any worry on their account. I have given up the motor car for the last 3 years and with that the thought of hurry has gone out of my mind. I believe that the hurry and worry of modern civilisation are the sources of many illnesses of the present day.

Fortunately, I have developed such a frame of mind that I do not easily get disturbed by good or bad incidents of daily life.

*"Apooyamaanam Achalameatisutam
Samudramaapah Pravisanti Yadwat
Tadwatkaa maayam Pravisanti Sarve
Sa Saanti Maaphoti Nakaama Kaamee (Geeta-2)*

"He attaineth peace, into whom all desires flow like rivers flow into the ocean, which is filled with water, but remaineth unmoved. Not he, who desireth desires".

All my actions are now prompted by the idea of the good of society and I am, therefore, glad to say that I enjoy my life as a game (Leala),

The following Sloka from Charaka has always been my guide

*"Nityam Hitaahaaravihaarasevee
Sameskshyakaaree Vishayeeshavsaktah
Daataa Samah Satyaparah Kshamaavaan
Aaptopaseveecha Bhavatyarogah."*

"One who is accustomed to suitable and habits, who always acts after proper reflection, who does not entangle himself in the objects of his senses, who is forgiving, who serves with humility all those who are wise or who is contented with what he possesses, is never subjected to any diseases."

May God grant we this happy state health for some time more for the benefit of humanity.

*"Loka Samgraha Nevaapi
Sampasyah Kartu Marhasi*

(Geeta-3)

"One should perform all actions having an eye to the benefit of humanity."

CHAPTER IV

THE SCIENCE AND ART OF MASSAGE

The Tamil proverb says "Vaidyarku kodukura panathe vaaniku kodu."

"The money that you pay to the physician may as well be paid to the oilman". This is to say that if you apply oil profusely to the body, you will be able to prevent many diseases.

ABHYANGA SNANAM

The word Abhyangam is commonly translated as oil bath in English,

The word Abhyanga is literally derived from the Sanskrit root "Abhyanj" (Abhi-Anj) which means to anoint or to smear. Strictly speaking the term Abhyanga is restricted to smearing the oil to a part or the whole body (compare Padabhyangam-application of oil to feet). Udvartanam and Snanam necessarily follow it. But in Andhra Desa the term is popularly used to mean oil bath i.e., smearing the oil, rubbing massaging for some time, applying the paste of some pulses and rubbing further in order to take off the excess of oil and then taking a comfortable hot water bath. As we shall see, the description in the texts regarding the benefits that are conferred by Abhyanga to the system are meant to be got by the smearing of the oil to the whole body are keeping it for some time. Abhyanga includes lubrication of the body, rubbing and bathing. The beneficial effects of Abhyanga have been laid out by Charaka thus:

*Susparsopachitaan gascha Balavaan
Priyadarsanah. Bhavati Abhyanga
Nityatwaat Naro Alpajara eva cha.*

A man who constantly (daily) takes Abhyanga possesses limbs which are smooth to touch and which are well developed (Upachita). The man will also be strong, be lovely to look at and will have very little appearance of old age on his person.

(Charaka Sootra Chap. 5 V-86)

Charaka further says:

*Na Chaabhighaataabhihatam
Gastramabhyangasevinah
Vikaaram bhajat atyartham balakirmani
Vaa Kwachit* (Ibid. V. 85)

A man who habitually takes Abhyanga is not much afflicted by external injuries (accidental); even if he has to perform very heavy and tiresome work, he will not be affected by any illness consequent to that.

Again he says:

*Snehaabhyangaat Yathaa Kumbhah
Charma Snehavimardnaat,
Bhavathi Upanvaat Akshascha,
Dridah Klesasaho Yathaa,
Tathaa Sareeramabhyangaat
Dridham Sutwakcha Jaayati,
Prasaantamaarutaabaadhvam
Klesa Vyaayaamasamsaham.* (Ibid. V. 82 and 83.)

Just as a post is made strong by smearing and soaking oil on it, just as a skin to made tense and strong by rubbing lubricating oil over it, just as an axis of a wheel is made strong and durable by applying lubricating oil (grease) around it, so also this human body becomes strong and possessed of nice skin by means of Abhyanga. Moreover. Vaata affections of the body. if any, are allayed by Abhyanga. The body can endure more fatigue and physical exertion.

The reasons for such benefits to accrue are stated by him thus:-

*Sparsane Abhyadhiko Vaayuh
Sparsanam cha Twagaasritam
Twachyascha Paramo abhyangah
Tasmaat tam Seelayet Narah.* (Ibid. V. 84.)

Vaayu, the principal Dosha (or Dhaatu) is to a great extent located in the Sparsanendriyam (sense of touch) and this Sparsanendriyam is located in the Twak i.e., skin and Abhyanga is conducive to the healthy growth of the skin (Twochyah) to a high degree (Paramah). Hence, a man should have Abhyanga habitually.

Here, an Aayurvedic student should know the relationship that exists between Sparsanendriya (sense of touch) and the other Indriyas and Manas, as then only, he can appreciate the value of Abhyanga, both in health and in disease. Dealing about this very important Indriya, Charaka says elsewhere.

*Tatra Ekam Sparsanendriyam Indriyaanaam
Indriyavyaapakam
Chetassamavaayi
Sparsanavyaapte.* (Charaka, Sootra, Chap. 11. L. 38.)

Amongst all the Indriyaas, the sense of touch (Sparsanendriya) is the most pervading one, having connection with all the other Indriyaas. In addition, it is inseparably associated with the mind (Chetassamavaayi). The Chetas (mind) has connection with the whole body only through this Sparsanendriya. The mind, in fact, is Anudravya (a very subtle substance) and it is pervading all the Indriyaas because of their inseparable association with the Sparsanendriyaas. As such, the Indriyaas are able to get a contact with their objects (Arthaas) by touching them. Without the help of Sparsanendriya, the mind cannot be joined to any Indriya or any part of the body and if the mind is not thus joined how can feelings of happiness or misery be known? The mind is the cause of happiness or misery. The Indriyaas can get contact with their objects through the help of Sparsanendriya.

Even Sootra (sense of hearing) is associated with Sparsanendriya, for, it is the tenet of Aayurveda Darsana that Srotendriya is a Paanchabhoutika Indriya located in the cavity of the ear (Karna Sashkulee).

*Srotramcha Asmaddarsane Paanchabhoutikam
Karnasashkuleegatanabhoroopam
Tena Tasyaapi Sparso Asti (Chakrapani)*

As Sparsanendriya is also one of the principal seats of Vaayu, it is improved by Abhyanga as Taila lessens increased or vitiated Vaayu. Thus lies the importance of Abhyanga in Vaata affections, which are more than 50 percent of all diseases in this world.

*"Abhyangaamaacharet nityamsa jaraasrainva vaatahas
Eaishtiprasaada sushtyaayuh swapna suthwakthwa daardhyakruth".
(Vaag. Sut Ch. 2.)*

"One should take an oil bath every day. Oil bath removes old age, tiresomeness and pains in the body. It improves eyesight and gives plumpness to the body. Oil bath induces good sleep, improves the complexion of the skin and gives strength to the body. In short, it prolongs life (Ayuh)." So says Vaagbhata.

*"Sirah sravana Paadeshu tam Viseshena seelayet."
(Vaag. Sut. Ch. 2.)*

"You must apply the oil more profusely to the head, ears and feet."

*Tatra Pratilomam Aalimpeth, Na Anulomam
Pratilome hi Samyak Oushadham Avatishstate
Anupravisyati Romakoopaam Sweda Vaahibhischa
Siraamukhaih Veeryam Praapnoti.
(Susruta Sootra. Ch. 18 L. 4.)*

A person who is tired by a long journey either on foot or by a dusty train, feels very comfortable when the whole body is rubbed with oil and then washed profusely by nice hot water.

The oil bath is said to prolong life and to remove old age. I am a great believer of this theory. The modern scientists have not yet studied it sufficiently to discover the advantages of keeping the skin perfectly clean or free from dirt. The skin is the largest of the organs that we possess. It has a surface area much larger than that of the entire surface of the epithelial tissue of the intestines, lungs and kidneys put together. We know that the action of the skin is co-ordinated with the functions of other excretory organs. When the skin does not perspire in the cold season, the quantity of urine increases and in the hot season, perspiration increases while urine decreases. If Malas or the excreta are removed continuously from the body and if we can make the tissues mathematically free from the poisonous effects of their own excreta (i. e.,) their metabolic wastes, the tissues can live or vegetate indefinitely. It has now been shown that the heart muscle would grow continuously without any tiresomeness or old age if it is fed regularly on suitable food and if it is washed out every now and then so that it may be freed from its metabolic waste products or excreta.

The results of oil bath are exactly similar. Oil bath removes the dirt from the millions of pores. The action of the hair follicles is doubled and trebled. A perfectly clean skin, therefore, goes a great way in preventing diseases of the lungs and kidneys, if not also of digestive organs. This action may be possibly improved directly or indirectly by the brisk circulatory changes caused by a good rubbing of the skin.

Most consumptives develop very early in the disease an unhealthy skin. Consumption thus affects the skin as much as the lungs. A consumptive or a person suffering from low and prolonged fever (Puraana Jwara) is treated, according to Aayurveda, by gently rubbing the skin with specially prepared nutritive oils. The tissue vitality of the skin is thereby restored.

Describing the Sampraapti of Raajayakshma, Susruta says, that obstruction in the Rasavaha Srotasses caused by the Doshas is responsible for its advent and among the Doshas, Kapha is the chief Dosha. Note that Kapha is not the only Dosha but it is the important Dosha. *'Kaphapradhaanaih Doshairhiruddheshu Rasavartnatu - (Susruta - Uttaratanttra Ch. 41. V. 9.)*

Abhyanga followed by proper Udvartana and Snaana is mainly Kaphahara and Vaatahara. The Abhyanga and Udvartana tend to lessen the obstruction at least in the superficial Srotasses underneath the skin. Thus Charaka advocates Abhyanga, Sweda and medicated baths etc., in Raajayakshma for Peenasa. (Peenasa Swedam Abhyangam Dhoomam Aalepanamcha; Parishekaa vagahaamscha—(Chikitsa Chap. 8. V. 63.)...Tailaani Abhyangayogaani Vastikarma Tathaaparam (Ibid V. 79) ... Chandanaadyena Tailena Saatadhowthena Sarpisha Abhyangah payasaa Sekah ... (Ibid 83) Bahissparsanamaasritya Vakshyatatah param vidhih, Snehaksheere Ambukoshte tam Swabhyaktam Avagaahayet Srotovibandhamphamokshaardham Balapushtyarthameva vaa. Utternam misrakaih Snehaih, Punaruktaih, Sukaih Karaih, Mridneeyaata Sukhamaaseenam Sukham cha Utsaadayet naram (Ibid. 16—170) Etat Utsaadanam Kaaryam Pushtivarnabalapradam (Ibid. 173)...Abhyangotsaadanaaih Snaanaih Avagaahaih vimaarjanaih (Ibid 179).

Susruta also advocates Utsaadana (preceded by Abhyanga) with the powders of Aswagandha etc. (Utsaadane Chapi Turangagandhaa Yojyaa Yaavaschaiva Punarnavaacha - Susruta - Uttara. Ch. 41. V. 43). From the above quotations, it may be clearly seen how Abhyanga develops strength and tissue-building in wasting diseases such as consumption.

The Rasa Dhaatu or lymph contained in the skin and subcutaneous tissues builds up other tissues, so that the wastage, which is a prominent symptom of consumption is checked.

*Jalasiktasya vardhante yathaa moole ankurastharoh
Thadha dhatu vivridhirhi snehasiktasya jaayathe.
(Sus. Ch. 2 - V 32.)*

Just as a plant sprouts new* and tender leaves by the regular supply of water to its roots, so also the tissues of the human body grow with a freshness and luxuriance by the application of oil at the hair roots in the skin.

What is old age? The most important symptoms of old age are debility of the tissues, wrinkles in the skin and grey hairs. The wrinkles of the body are greatly counteracted by an oil-bath combined with vigorous massage over the wrinkled area. The prema-

ture advent of grey hairs on the head is successfully combated by rubbing the scalp very vigorously over the bone i. e. in simple words by an oil bath.

The term Mardanam, which means massage, includes pressing or rubbing and in a wider sense includes the various kinds of handling and manipulations of muscle, skin, hair and also of joints.

"Massage is the most important item of an athlete's training and it is that for various reasons, not only because it brisk up a man's circulation, cultivates the finest quality of muscle and tunes his system as nothing else will do, but also because, I know of nothing else which will keep either a man or a woman in such perfect health; for, its health preserving qualities are even greater than its muscle and tissue cultivating properties."—Harry Andrews.

Massage is one of the 64 arts recognized in India (Vaatsyaayana—Kaama Sootra.)

Utsaadana—Samvaahana—Kesamardana—Kousalam is the full name given to the art. The art is primarily subdivided into three types.

- (1) Massage done with legs—Utsaadanam.
- (2) Massage done to the head with hands—Kesmardanam.
- (3) Samvaahanam—Massage done to parts of the body other than the head.

(1) Utsaadanam—Massage with the legs.

Mardanam Dviividham, Paadaabhyaam Hastaabhyaamcha. Tatra, Paadaabhyaam yath Mardanam Tath Utsaadana Mutchyathe. Hastaabhyam yath sirobhyanga—Karma Tath Kesamardanam. Kesaanaam Tatra mridyamaanatwaat Tadyapadesah Seshaangeshu Samvaahanam.

Massage appears to be done in this country with the legs as a very common operation and it is still widely prevalent in Malabar, where men and women, who are experts in operating with the legs, are readily available. Susruta says that a man who has his body well pounded by physical exercise and then massaged with the legs will not be approached by any disease just as a lion is not approached by other animals.

"Vyaayaama Kshunna Gaathrasya Padbhyaam Udvartitasya - Cha, Vyaatha Yo Nopa - Sarpanthi Simham Kshudramrugaa Iva - Susruta Chikitscha."
(Ch. 24. V. 43.)

The two words Utsaadana and Udvartana are sometimes used as synonyms, meaning rubbing. Here, he uses the word Udvartana in the sense of massaging with the legs. Whether the rubbing is done by the hand or leg, the word Utsaadana is now (in this book) applied for rubbing up and down in long strokes. The word Udvartana is now used for rubbing into wicks a paste applied to the body. The paste consists generally of green gram or any other flour of cereals mixed with water. This is applied to the body after anointing it with oil.

(2) Kesamardana is literally the massage of the hair, which is done with the hands. The word (Talantu) Kesamardana, however, is now applied in Andhra country to the oil bath in which the whole body is anointed with oil, rubbed and washed with water and cleaning agents.

(3) Samvaahanam is the term applied to massage of all the parts except the head.

'Seshaangeshu Mardanam - Samvaahanam.'

Vaatsyaayana Bk. 1-3-16 Jayamangala's commentary.

Samvaahanam is for comfort and also for medical purposes. I have classified massage into the following three classes.

- (1) Athletic massage—Dehamardanam.
- (2) Medical massage—Samvaahanam.
- (3) Hygienic massage—Abhyangam.

The word massage which means kneading or rubbing is derived from the Hindi word Mashalji. It was probably adopted by the French, who learnt the art from the Arabian physicians. It is called Maalish in Urdu. In India, the practice of massage was known from most remote times. It was described in medical books and in Kamasutra, the science of sex.

The word Samvaahana appears to have been transformed into the Hindi word Champna (to press). This became Shampoo. The Swedish system of massage, we learn, is derived from a Chinese book of Congfou. It was said to be instituted in Sweden by Peter Hewrick Ling.

We quote below some extracts from the eleventh edition of the Encyclopaedia Britannica regarding the advantages of massage and the requirements for its scientific operation.

"The treatment acts essentially by increasing circulation and improving nutrition. It has been shown by Lauder Brunton that more blood actually flows through the tissues during and after rubbing. The number of red corpuscles, and, to some extent, their haemoglobin value, are also said to be increased (Mitchell). At the same time, the movement of the lymph stream is accelerated. In order to assist the flow of blood and lymph, stroking is applied centripetally, that is to say, upwards along the limbs in the lower part of the body and downwards from the head."

"The effects of the increased physiological activity set up are numerous. Functional ability is restored to the exhausted muscles by the removal of fatigue products and the induction of a fresh blood supply; congestion is relieved, collections of serous fluid are dispersed; secretion and excretion are stimulated; local and general nutrition are improved. These effects indicate the conditions in which massage may be usefully applied. Such are various forms of paralysis and muscular wasting, chronic and sub-acute affections of the joints, muscular rheumatism, sciatica and other neuralgia, local congestions, sprains, contractions, insomnia and some forms of head-ache, morphinism, obesity, constipation, inflammatory and other affections of the eye, including even cataract. General massage is sometimes applied, as a form of passive exercise to indolent persons whose tissues are overloaded with the products of incomplete metabolism."

Massage has been found to be very useful in my practice in nervous diseases, neurasthenia, melancholia, affections of the heart, high blood pressure, dyspepsia, diabetes and consumption in addition to diseases mentioned in the above list.

"Affections to which it is not applicable are fevers, pregnancy, collection of pus, acute inflammation of the joints, inflamed veins, fragile arteries, wounds of the skin and generally speaking, those conditions in which it is not desirable to increase the circulation, or in which the patient cannot bear handling. In such conditions, it may have a very injurious and even dangerous effect, and therefore should not be used in a haphazard manner without competent advice."

"Several things are required for a good operator. One is physical strength. Deep massage is a very laborious work and

cannot be carried on for an hour, or even half an hour, without unusual muscular power. A feeble person cannot practise it effectively at all. The duration of a sitting may vary from five or ten minutes to an hour. For general massage at least half an hour is required. A second requirement is tactile and muscular sensibility. A person not endowed with a fine sense of touch and resistance is liable to exert too great or too little pressure; the one hurts the patient, the other is ineffective. Then, skill and knowledge, which can only be acquired by a course of instruction are necessary. Finally some guarantee of cleanliness and character is almost indispensable."

"For reasons mentioned above, it is most desirable that patients should be attended by operators of their own sex. If this is not insisted upon, a valuable therapeutic means will be in danger of falling into disrepute both with the medical profession and the general public."

DEFINITIONS OF MASSAGE

*"Thath krutvaathu sukkam deham
Vimrudneeyaath samam thathah (Astaangahridaya Ch.2.V.)*

After a person finishes physical exercise, he should have his whole body thoroughly and uniformly massaged. The massage should be comfortable—Sukham. It should be even—Samam. It should be done intensively—Vimrudneeyaath.

This is the secret of the Indian wrestlers keeping up their strength to a very late age.

Massage is of three kinds:—(1) Dehamardanam or athletic massage (2) Samvaahanam or medical massage and (3) Kesamardanam or hygienic massage.

(1) In Dehamardanam or athletic massage, the object is to tone the muscular tissue, to remove fatigue and to give comfort after physical exercise. In Dehamardanam, the movements are done with considerable force and reinforced friction is resorted to, wherever the hands move upwards or across a muscle. The operator and the subject resist the movements of each other, so that the individual muscles contract at each stroke.

(2) The object of medical massage, Samvaahanam, is to give comfort to the patient, to improve circulation and to promote absorption of inflammatory exudations or swellings. This massage induces sleep, removes obesity and pains in the body and relieves fatigue. It promotes development of muscle, blood and colour of the skin. In Samvaahanam, the oil is applied very gently to the parts, the stroking and other operations are done in a most comfortable manner. This is a passive massage in which no resistance is offered, whereas athletic massage is a deep and active massage.

(3) Hygienic massage is intended to clean the skin and to tone up the nerves.

The processes involved in this art of massage are many and a definition of some of these processes is necessary to understand the art.

Anulepanam (Lubrication).—This is applying the oil gently to the parts. It is generally done with both hands.

Gharshanam (Friction).—Rubbing the body up and down or side to side in short strokes.

Siraamukhaviviktatwam Twaksthasya

Agnescha Deepanam

Udgharshanotsaadanambhyaam

Jaayeyaataam Asamsayam

Susrute Ch. 24 V. 52.

Udgharshanamtu Vijneyam

Kandookothaanilaapaham

Idid V. 54.

Tejanam Twaggatassya Agneh.....

Siraamukhavivechanam.....

Udgharshanamtu Ishtikayaa

Kandookotha vinasaanam

Idid V. 56.

Both Udgharshanam and Utsaadanam clean the mouths of Siraas (blood vessels) and make the Bhraajakaagni keen without any doubt.

Udgharshanam removes itching (Kandu), red spots (Koiha), and Vaayu. This process with a brick piece stimulates the Agni situated in the Twak; it widens the mouth of the Siras; it also removes itching and red spots.

Udgharshanam (Reinforced friction)—Rubbing with pressure or more vigorously than in simple Gharshanam. Rough (Khara) Udgharshanam is done when there is itching sensation. It is applied to areas which are covered with eczematous scars or elevations. A rough piece of brick specially prepared may also be used (Ishtika). It is also used to keep awake a sleepy man as in cases of poisoning or collapse. It is said to relieve sweat, tiresomeness and thirst. In smooth (Mrudu) Udgharshanam, care is taken to slightly lubricate the skin before applying friction, otherwise the skin may be irritated.

Utsaadanam (Rubbing)—It is to rub the body gently up and down with a little oil. The rubbing is to be performed with greater pressure upwards i. e., towards the heart, from the wrist to the shoulder and from the foot to the hip.

Utsaadanaath bhaveth streenaam visehaath kaanthimath vapuh, Praharsha sowbhaagya mrijaa laghavaadi gunaanvitham.

Sus. Ch. 24. V. 53.

By the process of Utsaadanam, the skin of ladies gets a brilliancy. It is pleasant, improves complexion, purifies the skin and imparts a feeling of lightness to the body.

Udvartanam (Wick-rolling)—It is a process of applying soft or rough powders as a paste along with a lubricant to the skin and rubbing the paste into a sort of wicks, by gentle up and down strokes with the palm of the hand, evenly applied on the surface of the skin.

Udvartavam kaphaharam medasah pravilaapanam sthireekaranamangaanaam thwakprasaadakaram param. Vagbhat, Sutra Ch. 2.

Compare Susruta Chi. Ch. 24. V. 51.

Udvartanam vataharam kaphamedovilapanam—i. e. Udvartanam removes Vata also in addition to the Gunaas mentioned above.

By the process of Udvartanam, fat is reduced, limbs get tone, skin gets clean and acquires a lustre.

The terms Utsaadanam and Udvartanam are sometimes used synonymously.

Lataaveshtanam (spiral friction). Peedanam (kneading). Avapeedanam (light kneading), Prapeedanam (deep kneading), Angulipeedanam (kneading with cushion of fingers), Udveshtanam (wringing), Mandhanam (muscle rolling), Paripeedanam (petrissage), Sandhi Chaalanam (joint movement), Sandamsikam (pulling), Harsanam (vibration), Praharanam (percussion), Chedyam (hacking), Taadanam (slapping), Sampatakam (boxing), Vaadyam (tapping), Aasphaalanam (clapping), Maarjanam (sweeping), Kesamardanam (shampooing the hair) are some of the fine and coarse movements of the hands of the operators, which when dextrously used, create a large variety of feelings, which have a great value in the treatment of certain diseases.

Lataaveshtanam (Spiral friction)—This process consists of rubbing the limb in a spiral manner. This is done from below upwards beginning on the inner side and repeating on the outer side.

Peedanam (Kneading)—This consists of picking up each group of muscles with the whole hand and lifting them somewhat and squeezing them gently and comfortably with an alternate tightening and loosening of the whole.

Avapeedanam and Prapeedanam—Kneading with light and reinforced pressure respectively. This sometimes performed with the cushion-like eminences of the hand.

Udveshtanam (Wringing)—In this process reinforced friction is applied by the hand in a circular manner by the pressure of the edge of the stretched thumb and the index finger. It is done round the limb in a circular manner and is best fitted for application to the shoulder, the thigh or the sides of waist.

Mandhanam (Muscle rolling)—Grasping the limb with the hands a quick alternate pushing and pulling motion is made. The hands of the operator gradually glide downwards from the shoulder or hip. The muscles of the limb will be rolled against each other, whereby the circulation of the limb is very much increased.

Paripeedanam (Petrissage)—This means kneading with the cushion of the thumbs which are moved in small circles with considerable pressure. These kneadings loosen inflammatory adhesions and promote absorption of lymph and exudations. This is also called circular kneading.

Sandhichalanam (Joint movement)—This includes Aakunchana (flexion), Prasaarana (extension) and Bhramana (circumduction.)

Sandamsikam (Pulling) (Telugu-Tonalu Teeyuta).—This process is of compressing a part of skin between the thumb and the index finger. This is applied to the sides of a limb or trunk.

Praharana—(Percussion)—Percussion is really beating. But the expert does the beating in a most skilful manner giving a feeling of great comfort. This is performed with the edge of the folded or extended fingers, which are kept loose. The fingers of the operator are flung across the muscles in various directions by quick and dextrous of the wrist joint.

The fingers may move as in Chedanam (hacking). Taadanam (slapping), Samputakam (boxing). Vaadyam (tapping) and Aasphaalanam (clapping).

In Chedanam the hand rests on the little finger and moves up and down. In Taadanam, the palm is held evenly touching the part. In Samputakam, the fingers are held so as to form a loose box. In Vaadyam, the fleshy tips of the fingers are moved rhythmically on the part massaged marking time by cymbals. In Aasphaalanam, the fingers are folded so as to form a hollow on the surface thereby producing a loud sound, while operating. The operator may manipulate these movements in a most pleasing manner producing a great stimulating action on the nerves.

Harshanan—(Vibration)—This consists of producing a pleasing sensation by a quick and gentle touch of the part with tips of the fingers and by very gentle stroking with the fingers upwards and downwards.

Maarjanam—Sweeping in long and gentle strokes. This is stroking the part of the body in long up and down sweeps. It is generally done very smoothly in tender parts and with a slight pressure in heavy parts of the body. It is of two kinds, -1. Sammaarjanam—deep strokes and 2. Mridu Maarjanam—soft strokes.

Kesamardanam—(Shampooing the hair)—This is a special massage of the head together with cleaning of the hair. The word shampoo is derived from the Hindi (Champna) to press or to squeeze. After lubrication, the scalp is vigorously moved on the cranium by

various processes of pressing, rubbing, slapping from the edges to the crown, stroking gently after each operation. In common use Kesamardanam means an oil bath which includes applying oil to the whole body for massage and washing it off with cleaning agents and plenty of water.

Phenaka—(Producing lather)—This means rubbing the part with substances producing lather such as soap. This is intended to clean the skin and to soften it. The powders of pulses and of rice or wheat, either alone or mixed, soft or coarse, according to taste are used for cleaning the hair and the body. Powders of some dry leaves such as Seekarani. Kurunthotti (Bala) etc, are also very much used. Soap nut and Scekaa are often used for final cleaning of the hair especially if the tuft of hair is very profuse. The purpose is not only to clean but also to keep the hair soft and glossy. When compared with these substances, soap is considered to be too rough and dry, at least in this climate and it is believed that the use of soap makes hair split at the tips. Milk, curd or butter milk are also used, by those who can afford to use them as they are good cleaning agents for the hair.

Snchanam (Lubrication)—This is the name of the process of administering and applying medicated oils externally to the body before sweating. It is a system in itself.

Of substances used for Snchakarma (lubrication), the following four are considered to be most suitable. These four are used both internally or externally.

1. Ghritham—Ghee, preferably cow's ghee.
2. Tailam—Oil, preferably gingely oil.
3. Vasaa—Animal fat.
4. Majjaa—Bone marrow.

*Sarpth Tailam vasaa Majjaa
Sarvasnehottamaah mataah.
Ebhyascha uttamam Sarpth
Samskaaraasya anuvartanaat*

Charaak Sutra, Ch. 3. V. 13.

There are four Snehaas intended for internal and external use. They are Sarpi (Ghee). Tailam (oil). Vasaa (animal fat), and Maj.

jaa (bone-marrow). Ghee is the best of all, as it can receive Samskaara i. e., acquire qualities which are not inherent in it. Samskaara means giving a different quality and Anuvartana means receiving such quality.

*Samskaarc gunaantaropanam, tasya ropanam
Anuvidhaanam sveekaranam, in yaavat*

Chakrapani commentary

*Ghrutam pittaanilaharam rasaa sukraujasaamhitam
Nirvaapanam mridukaram
Swarawarna-prasaadanam.*

Charaka Sootra Ch. I3.V. 4.

Ghee is comparatively cooling, whereas gingely oil is comparatively heating. Castor oil is better for relieving pains and is a purgative internally. Ghee improves intellect, memory and sexual power. It is also praised for relieving burning sensation, for softening the skin and for improving complexion and voice. It checks deranged Vaayu but increases Kapha as it is cooling. It is said to transmit the properties of drugs incorporated with it quicker than oils and without losing its own properties.

*Maarutaghnam naeha sleshmavardhanam
Balavarhanam twachyam twachyam ushnam
Sthirakaram tailam yanivisodhanam.*

(Charaka Sootra Ch. I3. V. 15.)

*Viddhabhaagnaahatabhrasta yonikarna strornjt
Pourushaapachaye snche vyaayaame cheshyate vasaa.*

(Charaka Sootra Ch. I3. V. 16.)

*Bala sukrarasa sleshmamedo
Majja vivardhanah, majjaa
Visesh to asthnaam cha balakrit
Sune ne hitah*

(Charaka Sootra Ch. I3. V. I7)

Gingely oil is also said to possess the properties of giving strength and of improving the skin. It is highly praised as a cleaning

agent for the Yoni (vagina). It checks Vaayu but does not increase Kapha. Of all vegetable oils, gingely oil is considered to be the best both from the point of lubrication and of giving strength. Oil is, however, more Tamoguna Vardhaka, i.e., producing dullness of intellect, while Ghee is said to improve memory and intellect. Buffalo Ghee is heavier and more Tamoguna Vardhaka than cow's Ghee.

Fat is specially useful in injuries, fractures of bones, for athletes and for improving sex-vigour.

Majja (Bone marrow) is said strengthen the bone.

Twentyfour methods of lubrication have been mentioned in Charaka Samhita.

Odanasha vilepeecha raso

Maamsam payo dadhi, yavaagooh

Soopasaakou cha yooshah kaambalikalah

Khadah, saktawah tilapishtamcha

Madyam, lehaah tathaiwacha.

Bakshyam abhyanganam vasti tathaacha

Uttaravastayah.

Gandooshah karna tailam cha nastah

Karno akshitarpanam,

Chaturvimsatih ityetaah snehasya prawichaaranam.

(Charaka Sootra I3. V. 23,24 and 25.)

There are twentyfour methods of lubricating the system with Sneha (both internally and externally). Food, Vilepee (a thick Conjee), meat juice, flesh, milk, curds, Yavaagoo (a thin from of Conjee), Dals, Saaka (curries) Yoosha (Dal extract), Kasmhalika (a food stuff prepared with curds, salt, sesame seeds etc.), Khapa (butter-milk boiled with woodapple, pepper, Chengeri etc), Saktu (powder of popped rice), Tilapishta (sesame seeds ground into a lump) Madyam (alcohol) Lehas (various confections), Bhakshyam (catables), smearing the oil, enema with lubricant substances, Uttaravasti (urethral or vaginal irrigation with medicated lubricants), Gandoosha (gargling with oil etc), Karnatailam (filling the ear with medicated oil), Nasy karma, Akshitarpana (a process where medicated ghee comes into contact with the eye ball with lids open). These are the twentyfour processes of Sneha—lubrication.

There are 16 methods of internal use and 8 for external use.

(a) *For internal use.* 1. The lubricant is mixed along with ordinary meals, 2. with porridge, 3. with meat juice, 4. with milk, 5. with curd, 6. with puddings, 7. with dal, 8. with vegetables, 9. with extracts of vegetables or dal in water (Yusham), 10. with vegetable soups prepared in combination with tamarind or other acid substances, 11. with vegetable soups prepared with curd or butter-milk, 12. with malted flours, 13. with crushed gingely seed, and sugar, 14. with wines, 15. with confections and 16. with sweetmeats; *For external use:* 17. as an oil bath, 18. as an enema, 19. as vaginal douche, 20. as a gargle, 21. as ear drops, 22. as nose drops, 23. as douche for the eyes and 24. as douche for the ears (syringing in ears).

The aims and objects with which lubricants are used:—

1. for strength. 2. for rejuvenation of the body, of the senses and of the mind—to create a new vitality—re-creation as it were. Punarnavakari is the term used.

The dose or the lubricant and the quality of the lubricant namely ghee, oil (vegetable fat), Vasaa-animal fat, or bone marrow, medicated or otherwise, the time of the day and of the year (season) are to be decided with reference to each individual's age, strength, constitutional tendencies and habits.

Swedanam—Swedakarma: Swedanam is sweating the body. This may be done to the whole body or to any part of it. The general or local sweating may be produced by two kinds of processes namely:—(1) Saagni Swedanam (sweating with the help of fire) (2) Niraagni Swedanam (sweating without the help of fire).

Chararka-Sut Ch. 14.V.46

Saagni Swedanam (i.e.) with the help of fire, is of 13 kinds.

1. Sankara Swedam: Sweating by giving fomentation with soft masses of drugs, applied comfortably hot with or without covering—hot fomentation with drugs.

Charaka Sootra, Ch. 14. L 41.

2. Prasthara Swedam: Sweating by making the patient lie on a bed filled with cooked grains or covered with heated leaves or other substances—hot bed bath. Ibid. L. 42.

3. Naadi Swedam: Sweating by application of steam supplied through pipes connected with a boiler of water, medicated or otherwise—Steam tube bath. Ibid. L.43.

4. Parisheka Swedan: Sweating by application of showers or sprays of medicated water or oil by compresses, constantly kept warm by sprinkling specially prepared hot decoction—hot shower bath. Ibid. L. 44,

5. Avagaaha Swedam: Sweating by making the patient sit, plunge or lie in a tub containing not medicated waters. At Raajagriha, the placet where Buddha spent many years, are now found hot and cold chambers in which mineral water of various degrees of temperature is made to flow by an intricate and an ingenious system of underground conduits. After two thousand years, we now see today pure water flowing through the Dhaaraas in all seasons of the year. There are nine Dhaaraas varying in intensity of heat from tepid water to very hot water. The water has the smell of sulphur—Tub or sitz or plunge bath. Ibid. L. 45.

6. Jenthaaka Swedam: Sweating by making the patient sit or lie in a hot air chamber till he sweats profusely. It is a circular room, 27 feet in diameter with a wall 27 feet high and fitted with plenty of windows. The room is built on the brink of tank or a big well and the entrance to the room is placed at a distance of 10 or 12 feet from the edge of water, on its southern or western side and facing the water. The air is artificially heated by a specially erected central furnace. The patient is first rubbed with oil and covered with flannels before he gets into the room. After he sweats profusely, he is taken out of the room, and is bathed comfortably in hot water. Elaborate descriptions of the hot air chamber and of this process are given in Charaka Samhita. A few miles from Pataliputra is a well called Agnikunda, (fire-well), which is traditionally known to be one of the remains of sweating baths, that existed in ancient India—Hot air bath or Turkish bath. Ibid. L. 46.

7. Asmaghana Swedam: Sweating produced by making an anointed person covered with flannels sit on a slab of stone previously heated by burning fire wood on its surface. The slab is cleaned and cooled to suitable temperature by sprinkling hot water on the slab.—Hot stone bath. Ibid. 47. V. 49.

8. Karshu Swedam: Sweating produced by making a patient lie covered with flannel on a small cot under which lies a pot-like pit in which is contained smokeless fire of cinders or dried cowdung cakes. The cot is adjusted at such a height as to be comfortably warm

Kayshu means a pit with a wide base and narrow mouth—Hot pit bath Ibid. V. 49, 50.

9. Kuti Swedam: Sweating is produced by making a person lie comfortably in a soft bed of silks and flannels in the centre of a round small short room having no windows and plastered inside with scented and evaporating substances. The room is heated outside by means of a number of stoves kept round the room—Vapour bath. Ibid. V. 51–53.

10. Bhuswedam: Sweating the patient by making him lie down covered on the floor previously heated and reduced to a suitable temperature by sprinkling water. Same as hot stone bath, but on the ground—hot ground bath. (Ibid. V. 54.)

11. Kumbhi Swedam: Sweating the patient by making him lie on a cot, beneath which is placed a metal pot, containing water or specially prepared decoction in which red hot balls of iron or stone are gently inserted. – Pot steam bath. (Ibid. V. 55–56.)

12. Kupa Swedam: Sweating the person by making him lie, covered with blankets, on a cot placed on a well-like pit in which cow-dung cakes or other inflammatory materials were previously burnt and removed—hot well bath (Ibid. V. 57–59.)

13. Holaka Swedam: Sweating the person by making him lie covered with flannels, on a cot placed on a heap of inflammable materials previously burnt to a smokeless condition reduced to comfortable warmth. In this case, there is no pit under the cot. The fire is not removed. Cf. Bonfire on Holi festival—Holaka.—Firebath. (Ibid. V. 60–61.)

NIRAGNI SWEDAM

In Niragni Swada, Sweating without fire, there are ten processes, namely:—(1) by physical exercises, (2) by confining in a hot room (3) by covering with flannels, (4) by subjecting to hunger, (5) by drinking intoxicating drinks, (6) by frightening, (7) by producing anger, (8) by poultices, (9) by quarrelling and (10) by exposing to the sun. (Charaka Ch. 14 Sweda Adhyayam.)

Again the sweating may be (1) Snigdha i.e., produced after a preliminary application of oil or (2) Rooksha (dry) i.e., without such an application of the lubricant. In all Snigdha Swedams, the patient

is first anointed with oil and is covered with warm flannels in the processes of sweating. After the sweating is over and after sufficient rest is taken, he is bathed comfortably in hot water before he is exposed to cold air. These processes of Swedanam described by Charaka Samhita apparently form the basis of the various kinds of baths, which obtained a great fame later in Roman and Turkish histories. They survived in India in the Hamaams of the Moghal Emperors but now they have almost disappeared for want of state patronage.

Sankara Prastaro Naadee Parisheko Avagaahanam.

Jantaako Asmaghanah Karsuuh Kutee Bhoooh

Kumbhikaivacha

Koopo Holauka Ityety Swedayanthi trayodasa.

Charaka Sutra Ch. 14. V. 39 and 40.

The above Sloka gives the list of Saagni Swedas.

Niragni Swedas are:—

Vyaayaama Ushnasadanam

Gurupraavaranam Kshudhaa

Bahupaanam Bhayakrodhau upanaahaahavaatapaah

Swedayanti Dasaitaani Naram Agnigunaadrite

Ityukto Dwigidha Swedah Samyu to Agnigunaih nacha

Ekaanga Sarvaangagatah Snigdho Rookshaasthadhaivacha

Charaka Sutra. 14, 67.

(1) Vyaayaama (physical exercise), (2) residence in a hot chamber (Ushna Sadanam), (3) draping a thick and a heavy cloth or rug all over the body (Gurupraavaranam), (4) restraint of hunger (Kshudhaa), (5) much alcohol (Bahupaanam) or such liquid, (6) fear (Bhaya), (7) Anger (Krodha), (8) Upanaaha (eternal application of certain pastes or powders over a part of the body and warping it with a skin or thick cloth or a bark, and bandaging it; Upanaaha, strictly speaking, is of two kinds:—Saagnika and another Niragnika, i.e., with and without the help of fire. The Saagnika Upanaaha included under the term Sankara (Chakarapaani), (9) Aahava (challenging or fighting or war) (10) Aatapa exposure to sun)—these are the Nira-

gni Swedas. In Āyurveda thus, Vyāyāma and exposure to sun etc., are Niragni Swedas and they check Vaata and Kapha but may increase Pitta and so, one should be on his guard in prescribing any Sweda Karma in the presence of Pitta. Hence, the knowledge of the presence of Doshaas is necessary before embarking upon such processes. It should be noted that Vyāyāma is itself a form of Swedakarma and a person who habitually takes physical exercise should abstain from it on the day when he takes any other Swedukarma, lest it should be overdone, Tadāha Swinnagaatrastva Vyāyāmam Varjayet Naraḥ. Charaka Sootra Ch. 14. V. 70.

The rule should be borne in mind namely that Swedakarma is to be done to a Snigdha person i.e., a man who has been sufficiently Snigdha, either habitually by taking foods, such as, ghee, milk, meat, Godhooma, and such other foods containing Mndhurāsa in general, or by taking a course of a Snehakarma for a week or so with the appropriate diet etc. "Snigdhaah Swedaiḥ Upakramyaḥ"

Charaka Sootra Ch. 14. V. 70

Here not only the internal administration of Sneh is intended but also external Snehakarma i.e., Abhyanga. That is why the process of Abhyanga is specially mentioned for a person before taking Swedakarma, especially Jentaaka Swedam, Kutee Swedam etc.

"Bhoogriheshu cha Jentaake, ushna garbha griheshu cha. Vidhomaangaara tapteshu, Abhyaktah Swedyate Sukham—Charaka Ibid U. 28. Note the word Abhyaktah—So also, before taking Asmaghana Sweda, a person should have Abhyanga.

Susamvritaangah Swabhyangah Snehivah Anilanaasanaiḥ
Ibid V. 57.

Here note the words 'Swabhyangah' i.e., the patient should have good Abhyanga with proper Snehāas which check Vaata i.e., Snehāas medicated with Vaatahara drugs. In Hlaakasweda also this Abhyanga is mentioned. Svaavachhaanah Swapan Tatra Abhyaktah Swidyatināa Sukham. V. 65. In Parishea Sweda, also, note the sentence. Yadhaarhaḥ siddhasnehaabhyakta gaatram Vastrāvachahannam Parishechayeti Parishekah Ibid V. 24. In the description of Prastara Sweda, note the expression 'Swabhyakta Sarva gaatrasya Sayaanasya Upari Prastara Swedah Ibid V. 42. So also in

Nadeesweda, note the expression "Vaatahara siddha snehaabhyakta gaatrah Baaspham upaharetet" Ibid V. 43. and so on.

Here, the point to be noted is to find out, where this Snigdha poorvasweda and Rooksha Poorvaswedah are necessary. Sweda is thus divided into two kinds, namely. (1) Snigdhapoorva Sweda, i.e. Swedakarma with the preliminary administration of Snehakarma both internally and externally and (2) Rookshapoorva Sweda i.e. Swedakarma without Snehā. When Vaata is vitiated and when it extends into Aamasaya, which is a Kaphasthaana, Rookshapoorva Sweda is advised. So also when Kapha is vitiated and extends into Pakwaasya, which is a seat of Vaata, Snehapoorva Sweda is advised.

Nats the paradox in advising Rookshapoorva Sweda for Vaata and Snehapoorva Sweda for Kapha. (Aamaasayagate Vaata, Kapha Pakwaasaya, aser ite Rookshapoorvahitah Swedha Snehapoorvah Tathaivacha. Charaka Sootra. Ch. 16. V. 9.)

The form of Swedakarma without the application of oil (Abhyanga) is Rooksha Sweda. Fomentations with heated sand, sunbath, merely physical exercises without the preliminary Abhyanga, simple hot air-bath, restraint of hunger are Rooksha Swedas, so to say. The Swedakarma along with Abhyanga and preliminary Snehā treatment or Snehā in the food is a Snigdha Sweda.

Thus, there are three pairs of classification of Sweda Karma—namely:—

- (1) Saagai Sweda and Niragni Sweda.
- (2) Ekaangagata Sweda (to a limb or part of the body,) and Sarvaangagata Sweda.
- (3) Snigdha Sweda and Rooksha Sweda.

"Ityuktah Dwividhah Sweda Samyuktaagnigunair nacha Ekaangasarvaanga gatah Snigdharookshah tathaivacha Ityetaḥ Dwivithaan Dwandwan Sweda Muddisya Keertitam."

Charaka Sutra Ch. 14. V. 65.

It is well to remember in this connection that some of the Niragni Swedaas are forms of Langhana treatment, such as restraint of hunger (Kshut), Vyāyāma (physical exercise), Aatapa (sun-bath) etc. Note that these reduce Kapha and may promote Vaata and

Pitta. i. e. Langhana generally reduces Kapha, but it may increase Vaata and Pitta. So, generally Snigdha Sweda is useful in Vaata affections, and Rookha Sweda is useful in Kapha affections and Singdha Rooksha Sweda i.e. one followed after another is useful in Vaata-Kapha affections (Snigdha Vaate Vihita Swedah; Rookshah Kaphe Vihitah Snigdha Rookshastu Vaata Kaphe Vihitah)—Chakrapani's commentary in Charaka Sutra. Ch. 14. V. 46,

The understanding of the state of the Doshas in a man should precede necessarily administration of proper form of Swedakarma. Abhyanga etc. So also, the proper understanding of the disease (here Dosha Vaishamyam or Dosha-Dhaatusammorchanam) whether it is constitutional or local, leads one to the administration of Ekaangagata Swedakarma and Sarvaangagata Swedakarma. In certain diseases, however, say rheumatism, according to the stage i. e. whether it is acute and chronic, either Ekaangagata Swedakarma or Sarvaangagata Swedakarma and sometimes both are to be given. So also, in this very disease (Aama Vaata) both Rookshasweda and Snigdhasweda are to be administered according to the stage of the disease. In certain stages of acute rheumatism attended with fever etc., Rookshasweda with heated sand bags and Upanaaha without Sneha (Abhyanga) are advocated along with Langhana etc.

“Rookshah Swedah Vidhaatavyo Vaalukaapotalaih Tathaa. Upanaahascha Kartavyah tepi Snehavivarjitaah” Yogaratnaakara.

But in certain other states devoid of fever or when the Jwara is in the form of Jeernajwara, Snehapaana, Vastes etc, are advocated,

“Langhauam Swedanam Tikta deepanaani Katoonicha. Virechanam Snehapaanam Vastayascha Aamamarute.” Ibid.

Here, the direction for Sneha (Abhyanga or internal Sneha), Vasti (Sneha Vasti or Niroohavasti) Rookha Sweda, Sneha Sweda etc. is made according to the state and location of Dosha or Doshas comprising the disease. In chronic rheumatism, when the disease may be called a Vaata disease such as Khanja Vaata or Khalleevaata or Sandhi Vaata or Kroshtuka Seersha etc., Snigdha Sweda with specially medicated Vaatahara Tailas, Abhyanga either to the whole body or limb or a part of limb may have to be resorted to. In an acute case of rheumatic fever (the initial stage when the fever is termed as Taruna Jwara or Nava Jwara), Abhyanga is prohibited and this point is clearly seen in the Jwara treatment.

“Navajware Divaa Swapna Snaanaabhyangaanna maidhunam krodha Prayaata Vyaayaama kashaayaamscha vivar jayet”

Note that Abhyanga and Vyaayaama are prohibited in Nava Jwara but Abhyanga is advocated in Puraana Jwara and Vishama Jwara with medicines like Chandanadi Tailam and Agurvaadi Tailam, according to the predominance of the Dosha, that causes chill or burning sensation. One has to remember all these points in relation to Abhyanga, Vyaayaama, Swedakarma and Snehakarma etc in their relation to the states of Doshas exhibited by the patient. A whole picture with all these points in view should be visualised and not an isolated notion regarding Abhyanga or Vyaayaama etc. contained in any one or two Slokas found in a particular chapter.

Charaka gives a list of diseases which are cured by Swedanam and this includes nasal catarrh, sore-throat cough, hiccup, asthma, head-ache, paralysis, intestinal disorders, retention of urine, stricture, rheumatic pains, hydrocele (early), anaesthesia of the skin and deformities of limbs.

Ibid. V. 20-24.

He prohibits the administration of the sweating treatment to certain persons, among whom are included pregnant woman, men inclined to haemorrhage, diabetic patients, men addicted to intoxicants, patients suffering from jaundice, ascites, and sores and men who are too much debilitated or emaciated.

Ibid. V. 16-19.

He says that special precaution should be taken to keep the area of the heart cool by the application of wet compresses of lint, flowers etc.

Ibid. V. 10. 11.

USE OF ENEMATA AND BATHS

In the treatment of many diseases, massage and baths together with enema help a great deal in curing them, particularly after they become chronic. Charaka says that, according to some people, the use of enema comprises the whole of a physician's treatment but he would himself admit that it may be considered to be half the treatment that a physician has at his disposal.

The treatments of hydropathy and naturopathy, which are so much praised today, are more or less the modifications of Sweda Chikitsa elaborately described in Charaka Samhita centuries ago. Strictly speaking the beneficial results of hydropathy are not only

duc to water but also to the application of heat and cold of which water is merely a vehicle. Thermo therapeutics or treatment by the regulation of heat and cold has no doubt very good effects in eliminating the poisons through sweat and urine.

Cleaning the body from the Malas—faeces, urine and sweat—is to restore health and to prolong life. True followers of Charaka's system of treatment do not have recourse to drugs in and out of season but adopt these harmless and salutary eliminating processes called Pancha Karmaas, together with regulation of diet and habits as the fundamental basis of their treatment.

GENERAL MASSAGE

It is difficult, nay impossible, to commit to writing all the dexterous operation involved in the various kinds of massage. The following scheme of general massage may, however, serve as a guide to the beginners. There are several methods. Only one method is followed here. Others should be learnt by observation and practice.

LEG

(a) Subject lying on his back on a table and operator at the level of the foot.

(b) Subject lying on his back on a mat; the operator is to sit down on one side at the level of the calf facing the subject. The leg is raised and placed upon the operator's knee or thigh.

(1) Anulepanam (lubrication) with both hands from foot to groin twice, coming down with three or four rotary sweeps and with occasional strokes with front and back of fingers.

(2) Brisk Gharshanam (friction) to bottom of foot more than a dozen times. Gharshanam to top of foot. Reinforced Angulipeedanam (thumb kneading) and Udveshtanam (wringing) to the foot (front and back) and to the heel.

(3) Leg raised upwards and resting on operator's shoulder. Utsaadanam (rubbing with pressure) upwards from foot to hip with hands six times.

(4) Reinforced Peedanam—Avapeedanam (deep kneading) from foot to hip four times

(5) Gharshanam (friction) from foot to hip four times in short strokes.

(6) Sandanisikam (pulling) downwards from hip.

(7) Lataaveshtanam (spiral friction) up twice both sides beginning from inside. Utsaadanam upwards with circular sweeps.

(8) The leg is flexed at the knee. Paripeedanam (petrissage) upwards and away from the centre of the body:—(a) foot, (b) from ankle to knee three times; repeat Utsaadanam, (c) rotary Utsaadanam to knee.

(9) Leg is extended at the knee and raised and supported in a slanting manner on the thigh of the operator standing. Utsaadanam upwards from knee to groin in front of thigh and back of the thigh six times.

(10) Mandhanam (muscle rolling) down three times alternating with Utsaadanam.

(11) Udveshtanam (wringing) from above downwards and from below upwards. Utsaadanam up.

(12) Praharanam (percussion), Chedyam (hacking), Vadyam (beating to time), Tadanam (slapping), Samputakam (boxing) and Aasphaalanam (clapping) to the thigh alternating with Utsaadanam.

(13) Sandhi Chalanam (joint movements), Aakunchanam (flexion), Prasaranam (extension) and Bhraamanam (rotation).

(14) Harshanam (vibration) downwards.

(15) Mrudu Marjanam (gentle stroking) in three sweeps downwards.

*Note :—*In athletic massage, the subject lies on his back with both legs stretched. Operator stands astride at the level of the subject's knees. One leg is raised and supported slantingly on the operator's thigh before commencing massage. First the thigh and knee are massaged and then the leg is bent at the knee for massage of the leg and foot. The foot of the subject is pressed against the dorsal of the foot of the operator to serve as a brake.

CHEST

Operator sitting astride across the thighs of the subject or standing at the level of the waist when the subject is lying on a table.

- (1) Anulepanam twice.
- (2) Utsaadanam to chest, (a) commencing at the level of the last rib on each side and proceeding upwards and inwards and then outwards and upwards to the back of shoulder and arm, six times, (b) Commencing from the middle line to both sides up to the middle of upper arm and back along the sides of chest, six times. Operator gradually raises his own body upwards and exerts great pressure, coming down with a swoop as he rubs upwards.

Utsaadanam again with both hands on the same side and with reinforced pressure.

- (3) Gentle Peedanam to mammary area and Utsaadanam to mammary glands and sides.

- (4) Paripeedanam to chest with palm upwards and away from the centre on both sides twice.

- (5) Repeat Utsaadanam as described in item number two above three times.

- (6) Heavy Utsaadanam upwards to ribs on both sides with deep breathing.

- (7) Praharanam, Chedyam, Vaadyam, Tadanam, Samputakam, Aasphaalanam followed by Utsaadanam each time.

- (8) Mrudu Maarjanam with fine strokes.

ABDOMEN

Bend knees, relax abdomen.

- (1) Anulepanam twice.

- (2) Utsaadanam cross-wise with palms and fore-arms of both hands alternately to cover the whole abdomen.

- (3) (a) Deep Peedanam with right hand four times, (b) deep Peedanam with left hand four times, (c) alternate four times, (d) Harshanam, Utsaadanam with palms to colon from below upwards and from right to left circularly along the upper part of abdomen and then down on the left side. Repeat 3 times.

- (4) Abdomen lifting four times with both hands from the sides to the centre.

- (5) (a) Paripeedanam down and up Recti muscles twice, (b) Paripeedanam down and up on each side, twice.

- (6) Utsaadanam upwards and outwards on each side 3 times.
- (7) Praharanam, Chedyam, Vaadyam, Tadanam, Samputakam and Aasphaalanam gently.
- (8) Harshanam to abdomen. Mrudu - Maarjanam.

BACK

Subject lying on a mat, operator sits astride on knees at the level of the thigh.

- (1) Anulepanam twice.

- (2) Utsaadanam up four times, hand of the operator working on the same side along the back upto middle of upper arm and back, 3 times and hands crossing each other like scissors, 3 times. Operator raises his own body and puts in all his weight in deep Utsaadanam. Pads of thumb, palm and fore-arm are used according to needs.

- (3) Paripeedanam up and outwards from the centre and down on each side twice with Utsaadanam.

- (4) Utsaadanam again four times on the same side and scissor-wise.

- (5) Muscle grasping up and down the back. Thumb and palm kneading to the spine.

- (6) Heavy Utsaadanam commencing from front in abdomen, rubbing along the side of abdomen and ending on the back at the shoulder of the opposite side. The operator generally uses only one hand, the other hand being used for fixing the body in position. Cover the whole area of back and sides successively from below upwards.

- (7) Anguli Paripeedanam up and down spine gently upto end of sacrum, followed by the same process reinforced upwards.

- (8) Heavy transverse Udveshtanam up and down the back and the sides.

- (9) Praharanam, Chedyam, Vaadyam, Taadanam, Samputakam, and Aasphaalanam alternately with Utsaadanam:

- (10) Harshanam down spine. Finish with six light Maarjanam strokes to spine.

BACK OF LEGS

1. Anulepanam twice.
2. Utsaadanam from foot to hip six times with both hands.
3. Deep Peedanam six times.
4. Utsaadanam from foot to hip six times.
5. Praharanam, Chedyam, Vaadyam, Taadanam, Samputakam and Aasphaalanam to the thigh and calf.
6. Utsaadanam upwards.
7. Udvestanam to thigh up and down 3 times.
8. Mrudu Maarjanam downwards.

HIPS

- (1) Anulepanam twice.
- (2) Utsaadanam with both hands four times.
- (3) Paripeedanam and Sandamsikam twice.
- (4) Utsaadanam with both hands four times.
- (5) Deep Peedanam with thumbs and all finger tips and palm twice.
- (6) Repeat Utsaadanam with both hands four times.
- (7) Praharanam, Chedyam, Vaadyam, Taadanam, Samputakam and Aasphaalanam.
- (8) Mrudu Maarjanam.

ARM

- (1) Anulepanam from the shoulder to the wrist twice coming down with three or four rotary sweeps and occasional strokes with front and back of fingers.
- (2) Mrudu Gharshanam from hand to shoulder in short strokes.
- (3) Special attention to head of shoulder, shoulder blades front and back. (a) Utsaadanam upwards with both hands, front and back six times, (b) with one palm on either side of shoulder head, six times, (c) with palm in front from below upwards, six times. Hold shoulder head steady with the other hand.
- (4) Udvestanam from shoulder to hand (a) from without inwards in the arm (b) bend elbow, Udevestanam 3 times outwards

CHAPTER IV

FACE

and 3 times inwards to cover the bent elbow, (c) from within outwards in the forearm (d) special attention to wrist with both hands. Udvestanam circularly.

(5) Paripeedanam with thumbs to hand (palm and back). Udvestanam and Anguli-Utsaadanam to each finger on four sides upto the tip. Panjah (interlock) fingers and release twisting slowly and tightly. Heavy Peedanam round palm and fingers.

(6) Lataaveshtanam from hand to shoulder twice to each side of arm beginning on inside of arm and Utsaadanam three times.

(7) Sandamsikam to sides of arm and forearm from shoulder to hand once. Utsaadanam 3 times from wrist to top of shoulder and side of neck.

(8) Paripeedanam from hand to elbow three times and to elbow and upper arm.

(9) Mandhanam three times, alternating with Utsaadanam.

(10) Praharanam from shoulder to elbow, forearm and hand, lightly. Chedanam, Taadanam, Samputakam down and up once each side followed by Utsaadanam each time from hand to shoulder.

(11) Sandhichaalanam :— Aakunchanam, Praharanam and Bhraamanam.

(12) Harshanam and Mrudu Maarjanam.

SPECIAL MASSAGE

Sirah sravana paadeshu tham Viseshena seelayet

(Vag. Sut. Ch. 2)

“You must apply the oil more profusely to the head, ears and feet.”

FACE

Mukhaalepaath dridham chakshuh peenagandam thathaa nanam Avyangapidakam kaantam bhavati ambuja sannibham.

By application of face ointments and massage, the sight improves, cheeks become plumpy and pimples on the face disappear. Face massage heightens the complexion so as to make the face as bright as a lotus.

(1) Anulepanam with gentle rotary movements of fingers upwards, outwards and downwards along the sides and finally inwards towards the chin.

(2) Operator standing behind the patient, Utsaadanam to side of face and neck with pressure downwards and gently upwards, 3 times.

(3) Operator standing in front or behind, Sandamsikam to the whole face very gently. Pinch up small portions of skin between the flesh of thumb and index finger comfortably, with both hands. Maarjanam.

(4) Anguli Peedanam down and up each side. Special attention around eyes, nose, ear and wrinkles.

(5) Utsaadanam: (a) Beginning from the inner corner of the eye, work gently with the fleshy tip of the index finger or thumb under the brow and over in a circle, 3 times. Around the eye similarly; (b) Similarly perform Utsaadanam commencing from the angle of lips with pressure upwards and along the side of the nose to the inner angle of the eye and then slowly downwards and outwards over the cheek, nearly the whole of the finger sweeping along the cheek outwards. Keep the skin tense by applying counter-pressure with the other hand or fingers; (c) Transverse Utsaadanam to forehead with thumbs inwards lightly and outwards with pressure with both thumbs simultaneously. Fix the head firmly and skin tense with all the other fingers; (d) Rotary Utsaadanam with the thumbs outwards to the temples with reinforced pressure. Maarjanam.

(6) Paripeedanam up and down each side. Special attention around eyes, nose, mouth, ear and wrinkles. Maarjanam.

(7) Palm Peedanam. Special attention to eyes, nose mouth, ears and wrinkles.

(8) Praharanam, Vaadyam and Taadanam.

(9) Head movements, backward, forward sideward and bending with resistance.

(10) Harshanam (1) with the tip of the index finger dot 6 times gently on the eyelids and around the eyes; (2) pinch up the skin of the lids 3 times gently in the centre and release; (3) Maarjanam with soothing strokes.

KESAMARDANAM

Though Kesamardanam means massage to the head, the word is used for general massage of the body for hygienic or cleaning purposes. Kesamardana is so named because special attention is to be paid to the cleaning of the hair, whenever an oil-bath is taken. In fact, the system of massage to the body in Kesamardana is widely different from the athletic and medical massage, so that this branch of massage is treated by some as an art in itself.

The processes are generally as follows :—

1. The operator first subjects the whole body to finger kneading after applying a very small quantity of the oil to the part to be kneaded.

2. Then the whole body is traversed with longitudinal and transverse strokes of long and short. Utsaadaana and Udvestana.

3. Special attention is then paid to waist, back, legs, arms and other parts, all movements as in general massage.

4. Oil is then applied profusely to the head, neck and back and massaged together. Oil is then profusely applied to the rest of the body.

5. Udvartanam with pastes of cereals and scented substances is then systematically taken up.

6. Head and the body are cleaned up with lather-producing substances and water—Phenaka.

MASSAGE FOR THE HEAD

Anulepanam, use oil freely.

(1) Gharshanam from edge to crown of the head. Take care that the hair does not get mixed up. Maarjanam downwards. Attention to hair.

(2) Anguli Paripeedanam from edge to crown of head with Maarjanam once again from front to back and downwards up to the neck.

(3) Vaadyam, beating to time.

(4) Gharshanam. Palm Peedanam. Attention to hair.

(5) Vartulam (circular) with palm and Anguli (digital) Peedanam, Gharshanam.

(6) Samputakam (boxing), Aasphaalanam (clapping) on the head and simultaneously on the back. Avoid heavy strokes on the neck.

(7) Repeat all movements. The wrist joint must be trained for dexterity in this art. Praharanam, Vaadyam, Taadanam, Chedyam, Samputakam and Aasphaalanam, Gharshanam.

(8) Special attention to ear. Fill ear with oil. Palm Peedanam, Anguli Utsaadanam, Paripeedanam with palm over the ear, Anguli Paripeedanam to the lobe of the ear, and all round.

(9) Head movements, backwards and forwards, bending with resistance. Bhraamanam.

(10) Harshanam and Maarjanam. Attention to hair.

SPECIAL MESSAGE TO THE EARS

*Hanumanyaasirahkarnasoolagham karnapooranam,
Abhyango maardavakaah kaphavaata nirodhanah,
Dhaitoonaam pushtajanano mrijaavarnabalapradah.*

(Susruta Chi. Ch. 24. V. 29, 30.)

Application of oil into the ear and massage around to the head removes pain round about the cheeks, neck and ears. It softens the parts and removes swelling and pain. It gives plumpness to the tissues, cleans and gives complexion to the skin and strengthens the parts.

SPECIAL MESSAGE TO THE FEET

Sira sravana paadeshu tam viseshena seelayeth

(Vagbhata Sootra Ch. 2)

Apply oil more profusely to the head, ears and feet.

Nidraakaro deho sukkah chakshushyah sram saptinuth

Paada thwak mridukareecha paada bhyangassadaa kitah.

(Sus. Ch. 24. V. 70.)

Rubbing the feet with oil produces sleep, gives comfort to the body, improves eye sight, removes fatigue and cures numbness. It also softens the skin of the feet and is, therefore, always desirable.

SPECIAL MESSAGE TO WAIST AND SPINE

In this country, it was customary for massagists to go from house to house both morning and evening offering to perform special massage for five or ten minutes to the waist and spine, just for toning up. The well-to-do people engage them on some monthly or annual payment, generally in grain.

The process of massage is generally as follows.—

A drop or two of oil is smeared to the operator's hands just to make them smooth.

1. Peedanam combined alternately with Utsaadanam to top of shoulders, top of shoulder blades and neck.

2. Deep thumb Peedanam in a semi-circular line along the inner edge of scapula on each side alternately, upto nipple in front and reverse the whole way, The same on both sides simultaneously.

3. Continuous Utsaadanam commencing from front of abdomen, along the side and across the back to the shoulder-head on opposite side. Forearm may also be used for massage on the back.

4. Udyartanan to waist combined with special thumb Paripeedanam to either side of spine and sacrum. Udvestanam to sides gradually proceeding upwards so as to cover from waist to arm pit on either side.

5. Thumb kneading along the side of the spine, up and down with deep pressure and with vibration.

6. Trunk twisting side-ways.

(a) Control firmly the hips and thighs of the subject by locking the thigh on one side with the operator's knee.

(b) Hold the upper portion of the trunk tightly by passing one arm under each shoulder and embracing the chest tightly all round.

(c) Lift the upper portion of the body by stretching the spine.

(d) Twist the trunk slowly to one side as much as possible and then to the other side; release slowly.

(e) Break knuckles in the spine in definite places comfortably. This has to be learnt only by sufficient training.

(f) Praharanam and Harshanam.

SELF - MASSAGE

Athletes massage each other's body in the Thalimkhaanaas with out any distinction of high and low social status of the person. In medical massage, a person who is ill should necessarily have massage done by another. For Abhyangam (oil bath), they usually employ specialists who still exist in this country for the purpose.

One, who has learnt the processes described already, may well be benefited by self-massage. Many of the processes such as Utsaadanam (tubbing upwards in long strokes), Udvestanam, (wringing), Peedanam; (kneading) and Gharshanam. (friction or rubbing in short strokes) are to be used according to the needs of the part under operation. The following scheme is given to help a beginner.

ARM

Stand straight with chest forward, legs apart, toes slightly turned inwards and feet firmly fixed on the ground.

Hold left hand firmly with a grip. Place right hand palm downwards on the back of the left forearm. Utsaadanam up as follows. Rub up to the shoulder and neck, the whole palm pressing firmly and then down to the fingers in the reverse direction lightly pressing. Then rub again upwards with pressure along the inside of the forearm to the arm-pit and from the arm-pit to the chest round the nipple on the same side and over the shoulder and along the back of the arm down to the wrist, lightly stroking.

The four strokes have to cover, the inner and outer sides of the whole arm, Use reinforced pressure in the upward movements, and resist the pressure by holding the operated arm firmly.

Repeat six times and also similarly massage right arm six times.

NECK

Utsaadanam:—Place the whole right palm against the right side of the neck. Commencing from the middle line rub upwards and outwards and up to the back of the opposite ear, the thumb pressing circularly upwards on the back side. Resist this pressure by the op-

posite movement of the neck. Repeat six times. Similarly with left palm on the left side of the neck, six times.

FRONT OF CHEST

Utsaadanam:—Start with the right hand over the right rib margin and rub diagonally up to the opposite shoulder and back of the shoulder. Simultaneously rub with the left hand starting on the same side. Repeat movement alternately. Repeat briskly six times scissor-wise covering the whole of the front of the chest.

Circular Peedanam with the pads of the thumb and of the palms alternately or simultaneously to the mammary areas and sides of chest.

CHEST, FRONT AND BACK

1. Take right hand and swing it on to the top of the left shoulder, and as far towards the back as you can get at. Now bring it back sharply.

2. At the same time throw the left hand quickly backwards towards your back to massage the back with the back of the forearms. Reach the back as high as possible. Repeat briskly with both hands alternately.

3. Chest and back slapping. The massage to the chest and back may be combined with chest and back slapping.

Draw both arms well back and thrust them quickly and forcibly cross-wise over the chest so as to stroke it on the sides.

4. Reverse the movements of the arms and stroke the middle of the back quickly and forcibly cross-wise on the back with the back of the forearms and back of wrists.

Alternate the arms, the top for the bottom and vice versa. Repeat all the four movements briskly and alternately eight to sixteen times.

DEEP BREATHING

Stand at ease with hands over the hips on either side. Take deep breaths six to twelve times,

1. Poorakam (inhale). 2. Kumbhakam (retain). 3. Rechakam (exhale). 4. Kumbhakam (retain) All equal and according to your capacity.

This is Samaritha Praanaayaam (equal breathing.)

Praanaayaam is of various kinds. It requires a special study and a proper teacher to practise them.

ABDOMINAL MASSAGE

Stand firm. Bend the chest and neck forwards so as to turn your eyes towards the navel. Relax abdomen. Massage abdomen as in general massage, Peedanam, cross and rotary Utsaadanam, and rotary Anguli Paripeedanam etc.

LEGS

Stand with feet apart, bend trunk forward and downward without bending the knees and place both palms on legs behind the ankle on either side.

Utsaadanam:— Rub from ankle upwards deep along the back of the calf and back muscles of the thighs to the hips on both sides as high as you can reach. Reverse the movement of the hands down to the ankle, lightly stroking. Repeat six times. Alternate similar movements on the front of the legs up to the groins and down, six times. Do not bend knees as much as possible. Beginners may stretch one leg to a side in a slanting position and bend the other knee slightly. Rub the stretched leg with both hands up and down, so as to cover all sides but with greater pressure upwards. It is easier still if one leg is placed alternately on a stool for massage. The two points to be noted are firmness of the limb and deep pressure upwards.

FEET, FACE AND HEAD

Special attention to the feet, face and head. Instructions as in general massage.

The same movements may be employed in daily baths for rubbing, cleaning and drying the body with a towel.

MALABAR MASSAGE

In Malabar, three kinds of massage are usually done traditionally by experts.

1. Dhaara—A steady stream of decoctions is allowed to flow on the forehead of the patient.

2. Navarai Kizhi—Massage combined with the application of extracts of a glutinous rice (Navarai) or broken wheat and milk.

3. Pichu or Pizhichal—Sponging the body with cotton sponges dipped in medicated oils.

Malabar massage is useful as a rejuvenator in nervous breakdown and as a treatment for paralytic and rheumatic patient and for those suffering from dyspepsia and for certain cases of diabetes. Dhaara treatment is specially useful for mental diseases such as insanity neurasthenia and for toning up debilitated persons and for dyspepsia. Pichu and Navarai Kizhi are used in paralysis, rheumatism and nervous breakdown.

The temperate season just after the rains, but before it is too cold, and after summer, when the climate is pleasant, is generally selected.

DHAARA

Dhaatoonaam dridhataam Karoti vrishataam

Dehaagnivarnau jasaam

Sthaaairyam paatavamidriyasya Jaraso

maandyam chiram jeevitam,

Assthaanam bhangam apaakaroti nitaraam

doshaan saameeraadikaan

Sarvasnehakritaa Sukhoshna subhagaa

Saivaanga dhaara nrinaam.

Sahasrayoga, Dhaaraakalpa. V. 2.

Dhaara treatment, made with a mixture composed of all Snehaas [lubricants] and which is comfortably hot and is applied to the whole body, makes the Dhaatus sturdy; it creates virility, improves digestive fire, lustre and Ojas, causes steadiness, strength of the

Indriyas; it removes old age; it prolongs life; it causes healthy union of fractures and ameliorates Doshaas like Vaata. The mixture of all Snehaas, a combination of Tailam, Ghrita, Vasaa and Majja.

Plakshodumbaragandhasaaravarana
nyagrodha devadrumaah,
Punnaagaahwakapittha chochavukulaa
sokaasana aamraasthathaa,
Dolaachampakabilwa nimba khadira
amoghaagnimandhaarjunna,
Ityaadyanyatamena sechanavidhou
Droneem Prakuryaat budhah, Ibid. V. 3.

A Dronee, a special boat-shaped table, is to be made with the wood of any of the following trees, viz., Plaksha, Udumbara, Gandhasaara (Chandana), Varana, Nyagrodha, Devadaaru, Punnaaga, Asoka, Asana Aamra, Dolaavriksha, Champaka, Bilwa, Nimba, Khadira, Amogra, Agnimandhaa Arjuna etc.

“Dronee hasta chatushkadeerghakaramaatra-
vyaasatatpaadamaa-
trodyatbhittiyutta dridhaa Samatalaa
Paadaantarandhaa bahih
Seershuhsthaana ihonnataikakara
maatraataanavistaarakaa
Nimnaa kinchana madhyatascha charanaih
hastaischa yuktaa dridhaih,

The Dronee, the plank or table on which the patient lies to receive the Dhaara, should be four cubits (6 feet) in length, an arm length (Karamaatra-1½ feet) in width, with a wall at the sides of the plank having a height of one-fourth of the width (4 inches); it should be strong even in surface and it should have a hole (receptacle with a hole outwards to gather the fluid) at the foot end of the Dronee. It should be elevated at the head side where the length and breadth of the surface should be one cubit. The Dronee should be a little concave in the middle and it should be supported with strong legs, It should be also provided with handles.

Evam Maaruta haaribhischa tarubhih
Droneem vidhaaya aadaraat
Devam chabhamukham dvirjanaapi bhishag-
vridddham prapoojyaatitheen,
Poorvaanhe divase Subhaadi mahite
lagnesayaanasyate Dronyam
Sechanamcaaharet patumatih
Drvayaih Yatoktaih bhiskak.

The Dronee may also be made up of any other wood of Vaata-hara trees. At an auspicious time in the morning, after worshipping Ganesa, physicians, guests and old and venerable people, the physician should direct the Dhaara treatment.

PRELIMINARY TREATMENT

A preliminary preparation of about a week is conducted before any of the three processes of massage is taken up. The patient is given Triphala decoction or any other mild purgative for a few days. Sometimes emetics are also given in suitable cases. Medicated ghees or oils are then administered internally and their effects are carefully observed. At the same time, steam baths or other kinds of Sweda Karma or fomentations are also prescribed. At the end of about a week, when the patient is considered fit, he is subjected to either Dhaara treatment or Navarai Kizhi or Pizhichal. Sometimes a course of two weeks of Pizhichal is undertaken for the first two weeks and the second two weeks are utilised for Navarai Kizhi.

In addition to the cleaning process, suitable medicines are also given internally for specific diseases during the whole period of six weeks. Medicated ghee and oils are also given internally—Snehakarma.

DIET

Light and nutritious diet is given rather sparingly. Wheat rice, ghee, non-stimulant preparations of vegetables, milk and buttermilk are generally allowed. Mutton is not prohibited. Appetite is kept up. Physical exercise, exposure to wind, strong heat of the sun, mental work such as continuous reading, and sex life are prohi-

bited. The patient is confined more or less to a solitary cottage in a picturesque locality with salubrious climate and away from cities. Sleep in day time is prohibited. Light reading and light indoor games are allowed. The treatment is completed before 10 a. m. daily.

DHAARA TREATMENT

A decoction of Aamalaki (gooseberry) boiled with four times the quantity of water is first prepared. Equal quantity of butter-milk is added to it.

The decoction of Aamalaki is highly praised for its rejuvenating properties, when used for daily bath for the head.

Yah sadaa amalakaih snaanam

Karoti sah vinischitam

Valeepalita nirmukto

Jeeveth varshasatam narah.

(Yogarātnakaram—Snana Prakara V. 76.)

The patient is made to lie on a plank, which is held slightly slanting downwards on the head side. A Chatti (open mud vessel) with a hole of the size of the tip of the little finger at the bottom is hung a foot above the forehead of the patient. A wick made up of cotton is loosely plugged in the hole. The chatti is filled with the mixture of the decoction of Amalaki and buttermilk. The mixture flows in a stream along the wick on the forehead of the patient and through the hair towards the back. A twisted band of cotton cloth is tied round the head a little below the middle of the forehead and above the ears and is tied by a knot behind the head. This band prevents the fluid from flowing into the eyes or ears. The fluid, that is allowed to dribble on the forehead continuously produces a pleasant thrilling sensation. For weak people the decoction may be a little warm. Otherwise cold decoction is preferred.

As the stream flows on the forehead, the patient is massaged with medicated oil by four operators, two on each side of the patient. The processes of massage are generally Utsaadanam (rub-

bing in long strokes); Gharshanam (rubbing briskly in short strokes), Udveshtanam (wringing), Lataavestanam (spiral friction) and Maarjanam (gentle sweeping).

The stream on the forehead is regulated by one operator, standing on the head side. He diverts the flow on to various parts of the head by occasionally changing the position of the vessel. The fluid that flows down into a receiver behind the head is taken up for refilling the container over the head.

This process of Dhaara is usually allowed to continue for one hour in the beginning and it is increased by five minutes daily up to an hour and a half in seven days and thereafter it is reduced by five minutes daily and is brought down to one hour on the 14th day. After fourteen days, Abhyangam with medicated oils is performed without the Dhaara for another two weeks. After that, a resting period of two or three weeks is allowed.

NAVARAI KIZHI

After the usual preparatory treatment of about a week, Navarai Kizhi treatment is taken up. Navarai rice or broken wheat is boiled with water or a decoction prescribed by the physician to the consistency of a thick mass. This is rolled in pieces of cloth into four bundles of the size of a small coconut. The bundle is now hung in a decoction made as follows and is allowed to boil.

Boil crushed Bala root in water (1 in 4) into a decoction, filter, mix with equal quantity of milk and keep the mixture boiling on a stove placed by the side of the patient. The four bundles are kept hanging in the decoction to boil; all the while, the massage is carried on. One operator, who is in charge of the bundles, lifts one bundle after another from the decoction hands it over to one of the four operators, who engage themselves in massaging the patient, two on either side.

The patient is first smeared with medicated oil and massaged for some time before he is subjected to the process of Navarai Kizhi. The patient is then made to lie on a special table, Dronee, placed on the ground. The Dronee is made up of a plank, not less than three inches thick, 2 feet wide and 6 feet long. A groove is cut along the centre of the Dronee into which the excess of the medicated oil applied to

the body flows. The plank is made in such a manner as to have an elevation for the head and a receptacle is adjusted near the foot side to drain into it the excess of oil. Five operators are required for conducting the massage. One takes out the bundle from the stove and gives it to the operators in succession. The milk decoction that is squeezed out of the bundle, which is held in one hand of the operator, is smeared up and down in long strokes all over the body, all the four operators being continuously engaged simultaneously. If there is any delay on the part of any operator, the semi-fluid stuff gets hardened. This process of massage of Navarai Kizhi is conducted from an hour to an hour and a half and then a warm bath is given after which the patient is allowed to rest.

PICHU OR PIZHICHAL

The third process is also conducted from two to four weeks. Sometimes the first two weeks are devoted to Pizhichal and second two weeks for Navarai Kizhi.

Medicated oil, about 80 to 100 ounces, is required for the process. Cotton swabs, as big as can be held in the fist, are dipped in cold oil and squeezed on the body of the patient by one operator. The other operator smears it all over the body. Generally two operators pour the oil and two operators smear it. Massage is done either with the hands or with the legs of the operators, standing with the help of ropes hanging from above. The process lasts from one to one and a half hours. The patient is then bathed in cold or lukewarm water.

CHAPTER V

UTILITY OF MASSAGE IN TREATMENT OF DISEASES

Samvaahana-Utsaadana-Kesamardana-Kousalam was one of the 64 arts that flourished in India from ancient times. Vaatsyaana, who lived in the early years of the pre-Christian era, gives descriptions of the methods of *Samvaahana* (shampooing), *Utsaadana* (massaging the limbs up and down) in long strokes and *Kesamardana* (hair dressing). Charka and Susruta give detailed descriptions of the use of massage in the treatment of diseases.

The custom of masseurs going from house to house at night daily to the houses of the well-to-do classes to massage the limbs of the elders before they retire to bed was existing up to 40 or 50 years ago. Particular attention was paid to the massage of the feet before retiring for the night. The masseurs were paid annual payment in the form of grain in the harvest season. This system of massage was not for any illness but only for promoting positive health. This is called *Samvaahanam*.

*Preeti Nidrakaram Vrushyam Kaphayaata Sramaapaham
Samvaahanam Maamsa Rakta Twakprasaada Karam
Sukham.*

Massage to the feet is pleasant. It induces sleep. It increases vitality. It checks Kapha and Vaata. That is, it reduces swellings and relieves pain and other symptoms due to nervous diseases. It

relieves tiresomeness. Samvaahanam promotes the growth of muscle. It improves blood circulation. It gives lustre to the skin. Above all, it creates a feeling of happiness (Preeti).

In the Zamindar families of Andhra State, some women who are specially trained in massage are retained as domestic servants, whose business is to attend to the daily and occasional massage and baths of ladies and children.

This art is still alive and it may be revived if an attempt is made in this generation. It will also provide an occupation for skilled workers in a class of people who can make an additional income by serving the sick and old people as a part-time occupation. For infants and little children daily oil bath is a very healthy habit.

*Abhyanga maacharet nityam sa Jaraa Srama Vaatah
Drishtiprasaada Pushtyaayuh Suthaktva daardhyakruth.
Vaagbhata*

“One should take an oil bath every day. Oil bath removes old age, tiresomeness and pains in the body; it improves eyesight and gives plumpness to the body. Oil bath induces good sleep, improves the complexion to the skin and gives strength to the body. In short, it prolongs life (Aayuh).” So says Vaagbhata.

Bhore Committee Report laments the absence of masseurs in the civil medical departments although there was an organised system of massage in the military services.

The Indian art of massage has its own speciality suited to our habits and climate and has, therefore, to be studied as a special science.

The Central and Provincial Health Ministers' Conference held in October 1946, passed a resolution at the suggestion of Mrs. Rukmini Lakshmipathi resolving to utilise the services of masseurs and Ustads in a comprehensive scheme of health services in India.

TREATMENT BY MASSAGE IN AAYURVEDA

The Aayurvedic approach to disease should first be understood clearly before appreciating the value of massage in the treatment of disease.

According to Aayurveda, treatment of all diseases may be expressed in 4 lines.

*Samsodhanam Samsamanam
Nidaanasyacha Varjanam
Etaavat Bhishajaa Kaaryam
Roge Roge Yadhaa Vidhi.*

Charaka Vimana, 7-33

1. Removal of pathogenic agent by purging it out of the body (Samsodhanam),

2. Relieving the tissues of the evil effects by the pathogenic agents.

3. Rooting out the original causes (Nidaana Varjanam).

The methods of Aayurvedic treatment are primarily classified into three.

1. Antahparimaarjanam includes all internal treatment by food and medicines.

2. Bahihparimaarjanam consists of all external treatment which includes physical exercise, massage, bodily cleanliness, and adjustment to environment.

3. Sas'trapranidhaanam—Surgical treatment, which consists of caustic, leeches, cautery and includes the use of surgical instruments with the necessary skill.

WHAT IS DISEASE?

*Rogastu Dosha Vaishamyam
Dosha Saamya Marogataa.*

Disease is a disturbance in the equilibrium of the three nutritive elements in the body called Tridhaatus or supporting elements—Vaata, Pitta and Kapha. The microbes are only a secondary cause. They are everywhere, both inside and outside the body. They cause disease only when the tissue resistance is lowered by the ill-balance of the tissue elements. When these elements support the body, they are called Dhaatus but when they are vitiated, they are called Doshaas—faults.

WHAT IS THE CAUSE OF DISEASE ?

Sarveshaam Rogaanaam Nidaanam Kupitaa Malaah

The root causes of all diseases and of old age are the toxins or debris or Doshaas retained in the body.

About 40 years ago, a German scientist, Alexis Carrel, rediscovered this fact by a practical experiment and he was awarded the Nobel Prize for his discovery.

He cut a bit of muscle from the heart of a frog and placed it in a suitable nutritive fluid. He regularly washed the bit daily and removed the metabolic waste generated inside the bit of muscle and changed it daily into a new nutritive fluid suitable for its growth.

By this washing away of the excreta, the bit of muscle began to grow and it lived vigorously for years without fatigue or old age.

This is what Aayurveda found out thousands of years ago. Aayurveda says, that disease, old age and ultimate death are due to the contamination of the body with the accumulated waste products of the living organisms.

Therefore, Aayurveda insisted on perfect cleanliness of the body, both internal and external. The Rasaayana treatment by Sneha and Sweda Vidhi (lubrication and sweating) and Pancha Karmas (the five processes of cleaning) is an attempt in this direction of thorough cleaning of the body. This includes intensive cleaning and rejuvenation of the body by expert massage.

SAMPRAAPTI—PATHOLOGY OF DISEASE

*Kupitaanaamhi Doshanaam, Sareera Paridhaavataam,
Yatra Sangah (Swa) Khavaigunyaat,
Vyaadhih Tatra Upajaayate. (Susruta Ch. 24 V. 10)*

Disease is produced, histologically by the morbid interaction of Doshaas, Dhaatus and Malas. When the Doshaas move regularly in their own channels called Srotases without any obstruction, there will be no morbid inter-action at any place.

But when an obstruction takes place, a series of changes follow, which we call disease. The spot at which the obstruction takes place becomes the first seat or focus of disease.

The names of different diseases are given according to the symptom complexes and the seats of the disease in the body etc.

The easy curability or otherwise of a disease is known by a careful study of the following factors.

Ruja Varna Samutthaana

Staana Samstaana naamabhih. Charaka Sootra—19.

1. Ruja—suffering i. e., the symptom complex whether it is mild or severe and so on.
2. Varna—complexion or appearance—pallor etc.
3. Samutthaana—the cause of the disease.

In modern medicine, the cause is in most cases attributed to a microbe, but in Aayurveda, the predisposing causes which lead to the loss of equilibrium of the nutritive elements and the tissues is considered the primary cause and the microbe the secondary cause.

PREDISPOSING CAUSES OF TUBERCULOSIS

For example, in the case of tuberculosis, the predisposing causes are:

1. Excessive strain (Saahasam).
2. Irregularity in food (Vishamaasanam).
3. Irregularity in eliminating the excreta such as stools, urine and sweat (Vegadhaaranam).
4. Wastage of semen (Daatu Kshayam).

These four causes debilitate the system and act as predisposing causes by decreasing the resistance to disease. They create a favourable opportunity for the disease producing microbe, namely, the tubercle bacillus, to settle down in the tissues of the body and do its havoc.

SEAT OF DISEASE

The seat or organ in the body where the disease is localised has a great part to play in determining the progress of the disease. There

is no system in the body which may not be affected by tubercle. I shall give only a few examples.

The seat of tubercle may be in any one or more of the Sapta Dhaatus, or any organ such as the lungs, kidney or the intestines.

If the tubercle bacillus is localised in the Rasa Dhaatu, it may cause any skin disease such as Scrofula or Lupus. Or it may cause Apachi or Gandamala (i.e.) enlargement and suppuration of the glands in the neck or glands in the Akilla, groins or anywhere in the body. In the blood, it may cause Rakta Pittam, in muscle Myocardites, in the bone caries of bones and in Mujja Dhaatu (brain and nervous system), the tubercle bacillus may cause tubercular meningitis or miliary tuberculosis and so on.

If the seat is to be in the lungs, it may cause pulmonary tuberculosis with all the attendant symptoms.

PROGRESS OF DISEASE

The progress of disease depends upon several factors relating to the :—

1. Degree of vitiation of the affected Doshaas—faults;
2. Dooshyam—the tissue affected;
3. Balam—the strength of the patient and the strength of the disease;
4. Desam—seat of disease in the body or climate;
5. Kaala—age, the duration or day of the disease;
6. Agni—the digestive capacity of the patient;
7. Prakriti—the constitutional peculiarities of the individual;
8. Satwam—the mental capacity—fortitude;
9. Saatmya—the individual habits;
10. Aahaara etc.—the food and the means that are available for undergoing the treatment and so on.

Sarvah Thridoshajo Yakshmaa

Doshaanaam tu Balaabalam

Pareekshya avastitam Vaidyah

Soshinaam Samupaacharet. (Charaka C. Ch. 6. 8—3)

All cases of tuberculosis are of three Doshic origin. The physician should judge the strength and weakness of each Dosha at any time and formulate his treatment accordingly.

PROGNOSIS

The following points may however be noted in determining the prognosis.

1. A consumptive patient who is without continuons fever with good strength. capable of enduring the vigorous processes of treatment, who has good digestion, who control his senses (eravings) and is in good spirits (Aatma Vantam) and whe is not emaciated, has good chance of recovery.

Jwaraanadha Rahitam

Balacatam Kriyasaham

Upakramet Aatmavantam

Deepaagnim Akrisam Naram.

(Madhava Nidhanam).

2. A consumptive patient, who gets emaciated in spite of eating his food vigorously, who suffers from diarrhoea, whose scrotum and abdomen are oedematous. is not to be taken up for treatment as such a case eventually proves fatal.

Mahaasanam Ksheeyamaanam

Atisaaraaupeeditam

Soonamushkaram Chaiva

Vakshinam Parvajayet.

(Susruta Uttara, Ch. 1—31)

3. Whatever may be the number of symptoms present in a case of consumption, if there is no progressive emaciation and loss of strength it may be taken up for treatment.

MASSAGE IN TUBERCULOSIS

A clear understanding of the Aayurvedic approach regarding the causes of disease and its method of treatment is more important than the medicines. Tuberculosis is generally a chronic disease—and treatment by massage and baths is very useful in many cases. The external treatment (i.e.) Bahihparimaarjanam is often neglected

both by Aayurvedic as well as Allopathic doctors. Treatment by massage is a very important part of the Rasaayana trea(meut. It includes Sneha and Sweda Vidhi (i.e.) lubrication of the body and sweating. Sroto Vibandha (i.e.) blocking of the tiny lymph and blood vessels by vitiated Kapha is the cause of the disease and Sroto Vikaasa—opening up of these channels—is naturally a cure for it. Massage is an art in itself, We have said that Utsaadana Samvaahana Kesamardana Kousalam is one of the 64 arts that flourished in India, (i.e.) expertness in rubbing and pressing the body and shampooing the hair is taken as one art.

Massage requires great skill and patience. For want of patronage, it has degenerated in our country at present. It does not pay the doctor to take so much pains. Therefore, it is very much neglected. Bahihparimaarjanam is a very scientific method of treatment, which helps nature to improve the resistance of the body to disease. The word Maarjanam means cleaning. Parimaarjanam means thorough cleaning and Bahihparimaarjanam means a thorough cleaning of the exterior portions of the body.

I have great experience of the value of treatment by massage in many cases of tuberculosis.

MASSAGE IN TUBERCULOSIS AND DIABETES: SOFT MASSAGE WITH OIL IN TUBERCULOSIS

*Bahisparasammasritiya Vakshyate atah Param Vaidhih.
Snehokeera Ambhukoshteshu Abhyahtam Avagaahayet.
Srotovibandha Mokshaardhan, Bolapushtyardhamevacha.
Utteernam, Misrakaih Snehaih Puuaraaktaih Sukhaih Karaih
Mridneeyaat Sukha maasseenam snkhamcha Utsadayet
nam.*

Charaka Chikitsa 8. 172-74.

Charaka's treatment of consumption is really ideal. The aim of all treatment in consumption is the supply of nutritious food and the elimination of toxins.

The Rasadhaatu or lymph contained in the skin and subcutaneous tissues builds up other tissues, so that the wastage, which is a prominent symptom of coconsumption, is checked.

Jalasiktasya Vardhaute

Yadhaa Moole Aukuraastarpah

Thadaa Dhaatu Vivridhirhi

Shehasiktasya Jaayaihe.

Susruta Ch. 2. V. 22)

Just as plant sprouts into new and tender leaves by the regular supply of water to its roots, so also, the tissue of the human body grow with a freshness and luxuriance by the application of oils at the hair roots in the skin. For this purpose he recommends baths in a tub in which suitable oils, milk and hot or cold water are filled to the full. Before getting into the bath, the body of the patient is smeared with heating or cooling oils corresponding to the vitiation of the Doshaas. He should take a plunge bath in the tub. It means that the tub should be sufficiently deep.

Sneha Ksheerambhu Koshteshu

Abhyahtam Avagaahayet.

(Charaka Ch. S. V. 172).

The object of this bath is said to be two-fold, One object is to remove the obstruction in the Srotases (channels) carrying nutrition to the tissue elements. The other object is to provide the patient with strength and plumpness—Bala Pushtyardham.

Srotovibandha Mokshaardham

Balapushtyardhamevacha.

(Ibid. V. 174).

The oils penetrate into the skin and remove the dirt and make the passages clean. Some oils are also absorbed and they provide nutrition. Milk softens the tissues and probably also provides some nutrition to the skin.

After the patient is removed from the tub, he should be seated comfortably and should be rubbed down again with soft and comfortable hands to which special mixed oils are applied again and again. The attendant should massage the whole body comfortably after the bath in the tub and all the dirt should then be removed by

rubbing comfortably several applications of the cleaning agent. It should be noted that the word Sukham (comfortable) was used 3 times in the 2 lines.

- (1) Sukhāih Karāih—by comfortable hands.
- (2) Sukham Asaanam—comfortably seated.
- (3) Sukham Utsaadayeth—clean by rubbing up and down comfortably.

Mridneeyāath—The consumptive patient should have Mardhanam i. e. massage most gently and comfortable.

HARD MASSAGE WITH DRY POWDERS IN DIABETES

On the other hand, we find that in diabetes (Prameha, Madhumeha), where also the vitiated Dosha is predominantly Kapha, the type of massage prescribed should be very hard and that dry powders are to be used for rubbing the body, but not oils. He should also have plenty of physical exercise.

*Vyaayaama Yogāih Vividhāih
Pragadhāih Udvarthanrih Snaanāih Jalaavasekaiih
Sevyāa twa gela agarn ehandanaadyāih
Vilepanāih eha aasu nasanti mahāah.*

(Charaka Prameha Treatment, V—42.)

In consumption, the object is to promote growth by building up the tissues, whereas in Prameha the purpose is to reduce the unwanted the growth of certain tissues in the body. Therefore, the methods of massage in every disease depends upon the purpose for which it is done. It should not be done blindly. It requires great knowledge and skill.

Milk boiled with liquorice root, and Satadhowtha Ghritham are specially recommended or plunge baths and Useera (Khus-Khus) and Chandana water are recommended for cooling baths.

Where Vimaarjanam (special cleaning of the body) is required in consumption, Vimarjana (special hard massage to the body) is required in Prameha.

ADVANTAGES OF ABHYANGA IN TUBERCULOSIS

*Abhyangotsaadanāih Snaanāih
Avagaahāih Vimaarjanāih
Vastibhih Ksheerasarpirbhīh
Gandhaanam Upasevanāih.*

Charaka Ch. 8. 183-84

Abhyanga (oil bath), Utsaadanam (massage with scented powders and pastes), Snaana (hot and cold baths according to the condition of the patient and the season), Avagaaha (plunge bath) vimarjana (perfect cleaning of the body by gentle sponging and applications of scented pastes, such as Chandana) are all strongly recommended in consumption. Soft handling is required in all these processes.

Abhyanga (oil bath) is said to prolong life and to prevent the rapid advance of old age. I am a great believer of this theory. The modern scientists have not yet studied it sufficiently to discover the advantage of oiling the skin and keeping it perfectly clean or free from dirt. The skin is the largest of the organs that we possess. It has a surface area much larger than that of the entire surface of the epithelial tissue of the intestines lungs and kidneys put together. We know that the action of the skin is co-ordinated with the functions of other excretory organs. When the skin does not perspire in the cold season, the quantity of urine increases and in the hot season perspiration increases, while urine decreases.

If Malas or the excreta are removed continuously from the body and if we can make the tissues completely free from the poisonous effects of their own excreta (i. e.) the metabolic wastes, the tissues can live or vegetate indefinitely. It has now been shown as stated above, that the heart muscle would grow continuously without any tiresomeness or old age, if it is fed regularly on suitable food and if it is washed out every now and then so that it may be freed from its metabolic waste product or excreta.

The result of oil bath is exactly similar. Oil bath removes the dirt from the millions of pores. The action of the hair follicles is

doubled and trebled. A perfectly clean skin therefore goes a great way in preventing disease of the lungs and kidneys, if not also of digestive organs. This action may be greatly improved by the brisk circulatory changes caused by a good massage to the skin.

Most consumptives develop very early in the disease an unhealthy skin. Consumption affects the skin as much as the lungs. A consumptive or a person suffering from a prolonged fever (Puraana Jwara) is treated, according to Aayurveda by gently rubbing the skin with specially prepared nutritive oils. The tissue vitality of the skin is thereby restored.

KEEP UP THE SPIRIT OF THE PATIENT

After the bath, the patient is to be smeared with scented sandal paste and decently dressed and decorated with garlands of flowers and jewellery of choice. Tasty meats of goat, meat juice, goat milk, goat ghee, good wines, pleasing and fresh clothes, sweet scents, good surroundings, delightful music and visits from loving friends and graceful girls and comfortable living are specially advocated. Provided that the patient has sufficient Aatma Sakti, (soul force), he may conquer any pain or disease. Prayers to the chosen deity are then to be offered before resting according to the inclinations of the patient. This was the sanatorium treatment of Charaka—8 183-87.

The whole idea is to promote the influence of the mind over the body and to keep up the spirit of the patient at the highest level.

FORTIFY THE BODY—MICROBE WILL BE STARVED

It will thus be seen clearly that the Aayurvedic method of approach is not so much to kill directly the microbes causing diseases by the use of powerful drugs, but to increase the resistance of the body against the inroads of the microbes and to remove the dirt toxins (the Dosha) produced by the microbes by cleaning the passages. Thereby, we combat the disease by fortifying the patient and by starving the microbes by making the body an unsuitable place for them to live.

THE PRESENT POSITION

The art of massage is practised throughout India in the Talimkhanas by wrestlers and by professional experts called Samvaahakas. I learnt the definitions of these dxtuous operations by contact with them and by reference to Charaka, Susruta and Vaatsyaavana's Kame Sootraas. I took many cinema pictures of several operators; while practising the art and studied them. The science is in the books and the art is with the experts in the Akhaadaas. It is still fully alive. The Vaidyas should learn it once again from them and make use of the art in their treatment as in the days of yore.

I treat diseases like chronic indigestion with debility, diabetes, consumption, high blood pressure and rheumatism by systematic massage, and I find very good results even in cases where medicines fail to give a good response. Mahatma Gandhi was greatly benefited by massage when he had obstinate high blood pressure. He continued regular massage afterwards all through his life. I myself have had massage by an expert every morning for nearly one hour before bath. I find that it is very good rejuvenator.

IMPORTANCE OF PAADACHATUSHTAYAM

For successful treatment according to Aayurveda, there should be proper facilities for securing the auxiliaries which are absolutely essential, and which are called Paadachatushtayam—the four limbs or factors of treatment, namely, (1) a learned and skillful physician, (2) a potent medicine, (3) a capable, loving, intelligent and clean attendant and (4) a patient with a curable disease. When these four are available, there is a greater chance of a cure of the disease.

Charaka considers the utility of massage in several diseases more beneficial than the mere use of drugs. Diabetes, consumption, high blood pressure, paralysis, neuritis, rheumatism and several degenerative diseases are greatly benefited by skillful massage.

Massage is also good to rejuvenate a tired man to vigorous life. Practical Samvaahakas in the Andhra State are languishing for want of state patronage and support from the people.

REGISTRATION OF MASSEURS

I suggest that the following recommendations shall be made to the Government.

1. The professional masseurs above the age of 20 who are in practice for over 2 years or more should be registered in a register specially maintained for this purpose on payment of Rupees Two only and a certificate that his name has been registered should be given to him after registration.

2. Institutions giving training in massage according to a prescribed syllabus should also be registered in the same register in a separate list on payment of Rupees Five for each institution.

3. An examination in the theory and practice of massage should be conducted by the Commissioner for Government Examination in the Andhra State every six months and the fee for the examination shall be Rupees Two only.

4. The masseurs who pass the examination shall be issued the title of Samvaahana Kusala. They should be employed both in Āyurvedic hospitals and hospitals of modern medicine for special services to deserving patients.

5. Male and female nurses and compounders in Government and local board hospitals should be encouraged to get a training in massage and pass the Government examination in massage by offering them additional allowances after passing the examination.

The scheme does not cost Government any additional expenditure. The officers of both the Āyurvedic medical and health departments may be entrusted with the organization and supervision in addition to their routine duties, as it is a matter of promoting the health of the people of the State.

CHAPTER VI

ĀYURVEDA VERSUS ALLOPATHY *

Allopathy is now-a-days termed as the modern system of medicine and this perhaps may be to differentiate it from the ancient systems indigenous to our country. We associate progress with modernity and it is true that Āyurveda remained static for want of patronage from the alien rulers. As with our religion, so it is with our great medical science. Vicissitudes of fortune have inhibited its growth, but thanks to the great selfless workers, it is putting on fresh shoots today. If the Government gives its rightful place, the ancient indigenous system and the modern medicine should be complementary to each other and serve the people of the country each in its own capacity.

In the field of surgery, modern medicine certainly scores a point. It has advanced well and is still making rapid advance towards perfection. The present day surgeons are instrumental in bringing about spectacular cures and the operations are devoid of much of their terrors. Diagnosis of diseases has also become quicker, easier and perhaps more certain. But the use of X-rays and various microscopic and biological tests are not always an unmixed blessing. Even at the very beginning of the introduction of instruments such as a stethoscope, Sir James Mackenzie, a famous heart-specialist of England,

* Contributed by Dr. Lakshmi Devi Mirchandani, M. B. B. S., M. R. C. S. (Eng.), L. R. C. P. (Lond), New Delhi.

sounded a warning against undue dependence on instruments. According to him, the reactions of the patient and the bedside observations are far more important than any observation recorded by instruments and laboratory findings.

A human body is not altogether a machine, though it is often compared to it. There is something else which can be neither X-rayed, analysed, nor seen under a microscope. This 'something' can be studied and understood only by a ripe experience derived from long and patient observations at the bed-side. Aayurveda is based on such experience and observations of the sages, whose sole aim was to serve humanity.

The outstanding characteristic of the Indian mind is its synthetic approach and hence Aayurveda has classified all observations, both mental and physical, under three big groups, viz., Vaata, Pitta and Kapha, and later on into smaller and yet smaller groups, according to the various permutations and combinations. The nature of the pulse, the slight variations in the voice, the colour of the eyes, the feel of the skin, physical appearance of the sputum, urine and faeces—all give a mine of information to the Aayurvedic physician and enable him to correctly diagnose a disease without depending on elaborate laboratory data. This helps him to proceed with his treatment confidently. But a doctor trained in modern medicine would feel lost without the results of the examination of blood, stools and X-ray photographs. The higher the qualification of the doctor, the more is his dependence on these. So an accurate diagnosis has become a luxury which few can afford.

Lastly, in the treatment with medicines too, the allopaths have achieved dazzling results. There are specific drugs against several diseases and the sick man is put on his feet earlier by them than by an Aayurvedic physician. But the approach of the two is fundamentally different. In modern medicine, the theory of germs is very important and the chief aim of the treatment is the destruction of the germs. But these germs being not very different from the cells or the units composing the body, it is quite possible that the drug which kills the germs may also have a deleterious effect on the delicate body cells. So while a patient is cured of a particular disease, he may fall a victim to another disease as a result. Centuries ago, Charaka, the famous Aayurvedaachaarya, uttered a clear and ringing warning

against this. Yet, today instances of this nature are not unknown in the treatment with Penicillin and Sulpha drugs. The danger is enhanced by the various firms that send out alluring advertisements of drugs, which are said to contain various vitamins and hormones. The public must beware of the indiscriminate use of these.

Now, Aayurveda attributes all diseases to changes in the nature of the body fluids and their functions and no matter how they are brought about, it tries to restore them to normal. The process takes a long time but it brings about a permanent cure and leaves behind no untoward effects. The difference in the mode of approach of the two systems may be made clear by an illustration.

A country is invaded and occupied by an enemy. One may throw bombs at the enemy and quickly destroy him and, at the same time, also causing destruction to one's own land. On the other hand, one may non-co-operate and make it impossible for the enemy to stay. It is in these methods of non-co-operation with diseases that Aayurveda excels. Our ancient physicians laid great stress on how to promote health rather than on how to fight disease. They have bequeathed to us a wonderful code of rules of hygiene, both mental and physical.

THE MOST URGENT NEED OF INDIA TODAY

What is the most urgent need of India today? There are many answers to this question, and each one of them is as correct as any other; but here is the advice given by Sri Charakaachaarya ages ago, and it suggests an answer with which most people will agree.

*'Sarvamanyath parithyajya Sareeram
anupaalayet, Tathabhavehi
Bhaavaanaam Sarvaabhaavah Sareerinam.'*

Even at the risk of giving up everything else, you should protect your body; for if your body does not exist, everything that exists is non-existent to you.

This is good common sense. Whatever be our other aspirations, our foremost aspiration should be to have a sound body, for with-

out it other things can neither be achieved nor enjoyed. To be free from disease is not enough. The body should also be kept in a state in which it can resist disease. This stage is called "Positive Health". How few of us have an earnest desire to acquire positive health? Some aspire for wealth, some for name, some for some other thing and so on—but alas, few or none at all for Positive Health. We think of health only when we lose it, and then spend precious time and money in trying to make good the loss. Even those, the athletes and society beauties, who spend hours together in the care of body, do so, not so much with a desire to cultivate health, but to win name and fame.

In Bharat, things were altogether different before. Many a science like Chemistry was studied because it helped one to keep the body healthy. Aayurveda or the science of life formed a central science, which yoked other sciences into service. It does seem strange that a country, where soul is thought to be all important, should have attached such importance to the body. They, our ancients, took care of the body, not because they loved it and were attached to it, but because it served as an efficient means to an end. They realized that it was made of the five elements to which it would return. But it had a purpose to serve. They called the body and the mind a field (Kshetra)—a most appropriate name—and like good farmers, they cultivated it and kept it free from weeds, both mental and physical. It is this desire to cultivate the mind and the body that is required today.

Yes, the ancients attached great importance to the human body. They knew that it is the human body that possesses Buddhi or the power of discrimination and judgement through whose help the individual soul realizes its divine nature, destroying ignorance and impurity. Their goal was to attain the Brahmic state. Ours, on the other hand, may be different—a more materialistic one, to wit, to win wealth or perhaps a name. But the body is the conveyance which takes us to our goal and we must, against all odds, take good care of it for that very reason. We must not wait till an accident occurs and then spend all our time, energy and resources on repairs. We know that the law takes a very serious view if it be discovered that a driver has neglected to take due care of his conveyance. How then about the driver of the human body?

The Health Department of the Government of India and the World Health Organisation are busy working out ways and means to build up a healthy Indian Nation. All these are helpful, but will not go far in ensuring the good health of the nation as a whole, unless there is an intense desire, a strong determination on the part of the people, individually and collectively, to be healthy. It is this intense desire for positive health that is the prime need of India today. Every man, woman and child must feel it. When once this desire is kindled and well-established, ways and means of fulfilling it will appear by themselves. Thanks to our ancient civilisation we do not have to grope our way in the dark. We have only to switch on the light and the right royal path will automatically appear before us.

Nityam hitaahaara Vihaara Sevi

Sameekshyakari vishayeshu asakthtah,

Daataa samah satyaparah kshamaavaan

Aaptopaseveecha bhavati arogah.

Charaka.

A person who takes suitable food and recreation according to regulations, whose actions are well considered and not hasty, who is not entangled in vices, who gives freely, who is impartial, treating others as himself, who is truthful, forbearing and contented, remains free from disease.

These words deserve deep consideration. Nutritious food need not be costly food. Nature has in her wonderful methodical way produced material to suit all pockets. Only we must have the right wisdom and desire to choose properly. Regular recreation—this would mean a proper balance between work and rest—regular practice of at least a few Asanaas by each member of a family for a minimum of at least fifteen minutes a day early in the morning, would be of immense help in maintaining Positive Health.

There is no need for anyone to keep late hours in the office, all that is required is to put in full effort during the regular working hours. It is the quantity of work that counts and not the number of hours of work. Rest does not mean idleness. Recreation rather than idleness is the foremost requirement. Therefore, some pleasant occupation will be helpful.

The rest of the verse tells us how we may create a peaceful disposition. Peace is health supreme, restiveness is disease.

Thus the Road to Positive Health is not in any way a difficult one to tread. Neither large sums of money nor organizations is required. It is enough if everyone possesses an intense desire for Positive Health. It is this desire in every citizen that is the urgent need of India today.

PART III

CHAPTER I

GENESIS

The word Arogya means perfect health; Yaatra means pilgrimage—Arogya Yaatra is the name given by me to the pilgrimage or march on foot started by me for the promotion of Positive Health of the Indian nation. Arogya Yaatra was first inaugurated by Sri V. V. Giri and started from 43, Harris Road, Madras, on 3rd March, 1938, my 58th birthday at 2 p.m. The party, which consisted mostly of the students of the School of Indian Medicine, Madras, and the staff and workers of the Andha Aayurvedic Pharmacy, I and some of my patients and followers numbering about one hundred, marched on foot led by me, singing national health songs in chorus and holding banners with slogans advocating Positive Health.

We marched on from village to village along the Great Western Trunk Road and reached Arogya Aasrama, Avadi, by 10 p. m. that night. The gathering increased to about 500 as we marched on. The villagers welcomed the party with cool drinks and refreshments and held public meetings which were addressed by the members of the party, who appealed to the public to promote Positive Health by personal and environmental cleanliness and to practise Vyaayaama, Asanaas, indigenous games etc, so as to develop the four-fold qualities of self-control (Aatma Nigraha), self-reliance (Aatma Viswa-

sam), self-denial (Aatma Tyaagam), and self-help (Swayamaa Sahayam) in order to promote perfect health and immunity against disease. people was asked not to depend upon the Government for things that they can do themselves.

On 3rd March, 1939, my next birthday I renewed the Arogya Yaatra from Vijayawada as the centre of my operation and covered several neighbouring villages, accompanied by a party of local Vaidyas, of whom Sri Makela Sobhanachala Chakravarti, the President-elect of the Andhra Aayurveda Maha Sammelan this year, was one. I wanted this movement to become country-wide, but quite unexpectedly, Sri E. W. Aryanayagam, Secretary, Board of Education, met me there and invited me to Sevagram to carry on my work from there. He wanted my help for introducing the study of local herbs by the teachers under training at Waardha for work in Basic Schools throughout India, so that village herb gardens may be developed for the benefit of the teachers and students of Basic Schools. Gandhiji requested me to stay on at Sevagram and to work for the promotion of Aayurveda under his leadership. Thus the movement of Arogya Yaatra was suspended at that time.

On 3rd March, on which my birthday fell this year, I made it a rule to perform this Arogya Yaatra—march on foot for health—a distance of about 15 to 20 miles visiting villages and sacred temples in the neighbourhood, wherever I happened to be on that day. As I find that our National Health programmes have not reached the people of the villages, even after 10 years after the attainment of independence of India. I have decided to renew the movement of Arogya Yaatra on a country-wide basis this time. I have commenced my operations from the Dendulur Firka in West Godavari District, with the aid of 80 village Vaidyas who are undergoing training at Ellore, which is only about 4 miles from Dendulur.

INVITATION TO AROGYA YAATRA

The Chairman and Members of the Reception Committee

request the honour of your presence,

at the inauguration of

AROGYA YAATRA

(The Aayurvedic Health Expedition)

**Conducted in Dendulur and Bhimadole Firkas
from 10th to 17th January 1958.**

according to the plan of

Dr. A. LAKSHMIPATHI,

B. A., M. B. AND C. M. BHISHAGRATAN.

(President Anthra Aayurvedic Board, Andhra Pradesh.)

Hon'ble D. SANJEEVAYYA GARU, B.A., B.L.,

(Minister for Social Welfare and Labour, Andhra Pradesh)

*has kindly consented to conduct the inauguration
ceremony at SEETAMPET, W.G. Dt.,*

On Friday the 10th January 1958 at 10 a.m.

SEETAMBET,
ELURU, W.G.Dt.
20—12—57.

TOLUGANTI VENKATA RAMAYYA,
President, Dendulur Firka Grama Swarajya Sangham.
Chairman, Reception Committee.

PLAN OF AROGYA YAATRA

The chief items in the programme of the Aayurvedic Health Expedition shall be :—

1. To make the people realise the value of cleanliness of person and his surroundings.
2. To control disease through development of Positive Health by self-control (Aatma Nigraham), self-reliance (Aatma Viswaasam) and self-denial (Aatma Tyaagam)
3. To take pledges from individuals and congregations of people to this effect.
4. To take a pledge from the Vaidya to encourage Vyaayaam (Aasanaas), oil bath (Abhyangam), good habits (Sadvrittam) and clean living (Swastavrittam), to promote Positive Health.
5. To take pledges from people not to pollute drinking water to burn or bury rubbish, to make and use cattle yard manure and encourage village industries.
6. To encourage production of food and avoid wastage of food as a patriotic duty and to insist on consumption of more milk and unrititious food.
7. To encourage games and sports for boys and girls.
8. To organise an Arogya Seva Dal of Volunteers in every village.
9. To set apart one acre of land in every village as a herb garden.
10. To honour with a Tamboolam those who set an example to others in the village.

The Vaidya should form the centre of this movement of Aayurvedic Health Expedition. There is a Vaidya in every village. This movement does not require much book learning. It only requires practising what we know as good for the people and the determination of the people and some leadership.

India should give a new orientation to the World Health propaganda. Although importance is given to the Vaidyas, practitioners of other systems of medicine are welcome to co-operate with them.

*Pushti rastu, Tushti rastu, arogya mastu,
Aiswarya mastu, saanti rastu.*

20—12—57, Hyderabad.

A. LAKSHMIPATHI.

CHAPTER II

EXECUTION OF THE PLAN

The movement of Arogya Yaatra conducted in 4 villages of Dendulur Firka. in West Godavari District under the leadership of Dr. A. Lakshmipathi, President, Andhra Aayurvedic Board, was an unprecedented success. People responded with great enthusiasm in the daily routine of the Yaatra, which consisted of the following items :—

5-30 to 7-30 a.m. A procession singing simple and melodious national health songs, which started from the village temple, wended its way through the streets and bye-ways up to 7-30 a. m.

The village children, boys and girls, men and women joined the procession singing in chorus. This created a new wave of health consciousness in the area.

Simultaneously with the singing of the national songs, every house, street, and back-yard was scrupulously cleaned and rubbish was burnt or buried in the compound of the house. The Pongal festival, which was traditionally the occasion for cleaning and decorating the houses in Andhra Pradesh, offered very good opportunities in this purpose of Arogya Yaatra.

7-30 to 9 a.m. Dr. Lakshmipathi gave a public demonstration of massage and physical exercise at the different centres daily during this period and explained the great importance for the promotion of Positive Health of the Nation. He said that body-building was nation-building. The Vaidyas, volunteers and the people engaged themselves in personal cleanliness by applying oil to the body and

doing massage and physical exercises fit for each man's constitution. After bath, they had something to eat. The Arogya Yaatra took advantage of the Pongal festival in helping in the decoration of the villages.

Eighty village Vaidyas who were undergoing training at the Village Vaidya Training Centre at Ellore, took part in the Yeatra. The Government of Andhra Pradesh issued orders, deputing these Vaidyas for duty in these villages, and their participation in the Arogya Yaatra. This formed part of their training. Sri Kaviraj Kandukuri Vankata Subba Rao Garu, of Dhanwantari Kalaasramam, Ellore, was elected Chairman of Arogya Yeatra Samithi and he was in overall charge of the Yaatra. About hundred workers spread themselves in the 40 villages in the firka in 8 batches. Eight leading Vaidyas from the neighbouring Districts, offered their services for expert guidance at each of the 8 centres, into which the area was divided. Thus, every batch had five villages for its operations. The people received them with great enthusiasm and co-operated with them to the fullest extent. The Departments of Block Development, Education, Agriculture and Co-operation freely helped the movement by supplying jeeps, organising sports film shows etc., for the success of the movement. The Public Health Department was however conspicuous by its absence.

9 to 11 a. m. The Vaidyas of the village and the Vaidyas who came from outside engaged themselves seriously in attending to those who sought their help giving free medical aid.

11. a. m. to 2 p. m. Between 11 a. m. and 2 p. m. they had their food and compulsory rest.

2 to 3 p. m. Between 2 to 3 p. m., they had consultations with the elders in order to discuss plans the work to be done during the week and to continue the same from day to day.

3 to 5 p. m. They took part in games and sports such as 'Chedugudu', 'Kokku' and Uppupatli, our national games. They had also badminton and running races etc., in some places. We should revive our national games. They are now becoming games of international importance. Chedugudu is an excellent game promoting not only strength and vigour but also courage and discipline for team work.

5 to 7 p. m. From 5 to 7 p. m. public meetings were held where Arogya Sootras were sung and explained. Dr. Lakshmiopathi deliv-

red a special address every evening on the importance of popularising Āyurveda.

After 7 p. m., they had cinema shows on health topics. Dr. Lakshmiopathi said that he was glad to see the officers and men of the five-year-plan publicity there, ready to give them a feasting on health matters by film shows. Dr. Lakshmiopathi said that the whole of India was watching their work. It in this firka, they succeed in setting an example to other villagers, the credit would go to them. He said that there should be no hurry and hustle in this work. The volunteers should take these coolly and work up their way slowly and in company with the villagers.

THE REASONS FOR ENCOURAGING ĀYURVEDA

In one of his addresses Dr. Lakshmiopathi explained his ten reasons for superiority of Āyurveda as follows :—

1. Āyurveda is a comprehensive science, which incorporates into it the truth of all sciences in our country. He therefore, called Āyurveda the top science. The Philosophy of Āyurveda on the relationship between matter and spirit is of a high order. Further, Āyurveda is an art, requiring great skill.

2. Āyurveda is primarily an Ādhyātmika science, that is the science of the soul. Other sciences deal mainly with inert matter. Modern medicine considers man more or less as a machine. The mind of man is more important in the causation and cure of disease than the mechanism of body. Āyurveda deals with the social, economic, moral, aesthetic, religious and spiritual aspects of the life of man. It comprehends the harmonious attainment of Dharma, Artha, Kaama and Moksha. Its goal or Paramārtha is self-realisation of every man.

3. We are now spending crores of rupees for importing medicines from foreign countries, thereby increasing the poverty of our land. There will be no scarcity of medicines even in times of Āyurveda is kept alive in our country.

4. Āyurvedic medicines are cheap. Many of our drugs may be easily collected from our waste lands near the villages and in the forests. Medicines may also be prepared from them at very little cost.

5. Āyurvedic medicines are safe to handle. Even illiterate

people and women may use them after some practice. Therefore, I often say that Aayurvedic medicines are "fool-proof". The Government of Andhra Pradesh have on my recommendation ordered that lessons on Aayurveda and domestic medicines should be taught in schools and the colleges for girls in Andhra. The delay in its implementation is due to the neglect of Vaidyas and I am myself primarily responsible for this neglect, because I did not follow up the paper.

6. Aayurveda is suitable to the habits and constitution of people. The Aayurvedic approach is moral and spiritual which appeals to our people. It suits the environments of our country and climate.

7. The Study of Aayurveda encourages our spirit of research. If one is determined to use only Aayurvedic treatment, his mind constantly works at it and proper medicines and treatment suggest themselves by intuition. Otherwise, your mind runs to hunt up other pharmacopoeias for medicines, which you think are easily available but more costly and ineffective, I have learnt this by personal experience. I find that the more serious the disease, the more simple and harmless should be the medicines used by the physician. This is called the non-violent method, which helps nature in the permanent cure of the disease.

8. The system of dietary is the most important in Aayurvedic treatment. Aayurveda says that no medicine is required for a man who strictly observes the rules of diet and that every medicine is useless, unless a patient observes proper diet. Therefore, diet is more important than medicine.

Pathye sati gadaarthasya kim oushada nishewanam
Pathye asati gadaarthasya kim oushadha nishewanam.
 (Lolambaraju)

In one case, medicine is not necessary, because he will have no disease. In another case also, medicine is not necessary, because it is useless, without proper diet. In both the cases, it is more the diet and not the medicine that helps a man.

9. The Aayurvedic method of prevention of disease is by the promotion of Positive Health, which makes a man immune to disease. Aayurveda disciplines every man, woman and child to

develop self-control and to avoid vicious habits, which are responsible for most diseases. Aayurveda promotes good conduct (Sad-vrittam) which keeps a man healthy and happy. The system of Vyaayaam, Aasanaas, and Abhyanga is peculiar to Aayurveda. The science and practice of Yoga are greatly helpful in this matter. It is only the devoted followers of Aayurveda that can develop the necessary self-control which is most essential for the maintenance of robust health.

10. The last and the most important point is that the system of treatment in Aayurveda gives the greatest importance to the study of the constitution and personality of man, his mental state (Satwam), his habits (Saatmyam), his natural aptitude (Prakriti), his strength (Bala), age, season and the nature of his food in the greatest detail. By this method, Aayurveda attempts to study the ill-balance in the condition of the cells, tissues, and debris (Dosha Dhaatu Sammoorchanam) and to restore the equilibrium (Dosha Saamyatha). This is considered to be most important for the cure and prevention of disease. The fundamental principles of Aayurveda are true for all times—past, present and future. Aayurveda is capable of assimilating into itself all new theories and sciences, because its foundations are broad-based and are fit for universal application. If modern medicine can incorporate the teaching of the Bhagavad Geeta into it, then it may be said to be getting nearer to the conception of Aayurveda.

Dr. Lakshmipathi said that they should shake off slave mentality to appreciate the superiority of Aayurveda over the Allopathic system, now patronised profusely by our own Governments.

DISTRIBUTION OF PRIZES

Dr. Lakshmipathi presented one green mango leaf to those, who set an example to others by their meritorious conduct during the period of Yaatra. The first award was given to a brilliant boy of about 10 years, by name, Ch. Alluri Muralikrishna Rao, who led others by acquiring proficiency in singing health songs. He was blessed by Dr. A. Lakshmipathi while presenting him the award. The following donors were ceremoniously presented with a green mango leaf.

Name of the donor	Amount of donation	Nature of charity	Address
	Rs.		
1. Y. Sitaramabrahmam & Brothers	5,000	Aayurvedic dispensary	Kovvali, W. G. Dt.
2. Ch. Anjaneyulu	1,000	For herb garden	Gopannapalam, W. G. Dt.
3. Village Panchayat	5,000	For a herb & Aayurvedic dispensary	Gangannagudem, W. G. Dt.
4. Village Panchayat	6,000	-do-	Mediniraupalam, W. G. Dt.
5. Shri Rama Maruthi Sangham	5,000	-do-	Jogannapalem, W. G. Dt.

PLEDGES TAKEN

(a) Pledges were taken from Vaidyas that they would treat their patients as their own children (Swasutaaniva Yathavan—Susrutha) and that they would try to educate people to prevent disease instead of treating them after they fall ill.

(b) Pledges were also taken from people that they would not pollute drinking water, that they would not allow dirty water to collect in pits round about the houses, that they would not allow rubbish to be thrown about, but would burn or bury it under the earth so as to make it into manure.

(c) Pledges were also taken from the people that they would endeavour to produce food grains as a patriotic duty and that they would not allow food materials to be wasted in any manner.

RESOLUTIONS PASSED

1. The Gram Swarajya Sangh of Dendulur Firka resolves that continuous health propaganda should be conducted side by side with the medical aid that is rendered to the people in the Firka. It is further resolved that the Andhra Aayurvedic Board be requested

CHAPTER II

RESOLUTIONS PASSED

to appoint a village Vaidya for each village panchayat for the attainment of the above object, because such work can effectively be done through an Aayurvedic physician only. It was pointed out that the villagers were prepared to contribute 50% of the amount required for the maintenance of the hospital and the herb garden.

2. This meeting is of the opinion that the Vaidya so appointed will be given grain or other amenities in kind to the extent equal to the amount of grant-in-aid met by Government.

3. The meeting is of opinion that the Government should remove all obstacles that now exist for due performance of all these duties relating to health and medical relief in the villages through this organisation, and it is the opinion of this meeting that the villagers will be solely responsible for the maintenance of these institutions in course of time without any aid from the Government. This is the principle of Grama Swarajya.

4. It is further resolved that the Andhra Aayurvedic Board under the leadership of Dr. Lakshmipathi and the Andhra Pradesh Aayurvedic Mahamandali in consultation with each other, shall arrange for the training of the village Vaidyas in order to enable them to discharge their responsibilities under this scheme.

5. This meeting resolves that the property acquired under the scheme shall be administered by the Aayurvedic Section of Grama Swarajya Sangh as a body affiliated to the Andhra Aayurvedic Board.

6. It further resolves to offer their heartfelt and grateful thanks to the donors, who have contributed towards the attainment of the above objects.

7. The meeting further resolves to request the Andhra Aayurvedic Board to obtain the sanction of the Andhra Government for the establishment of Aayurvedic Hospitals and the herb gardens before the end of March, 1958.

8. This meeting resolves to request the Andhra Aayurvedic Board and the Government to establish at a centre in the firka an Aayurvedic museum, where the Ashataangaas of Aayurveda, drugs, medical preparations and appliances can be exhibited. It is further resolved that a suitable library may also be opened in this firka for the education of the public.

9. This meeting resolves to offer hearty congratulations to Dr. A. Lakshmipathi and the band of 80 village Vaidyas conducting the Arogya Yaatra who have demonstrated their skill in the diagnosis of diseases and in the administration of Aayurvedic treatment and in the organisation of the Yaatra.

10. It further resolves that they are feeling immensely happy after witnessing the arts, crafts, and Vyaayaam exhibited by the students of Yogalingeswara Night School, Jogannapalem. They requested the villagers to follow their path and village sanghas, panchayats and governments were requested to provide such amenities to the body.

2,000 VILLAGE HEALTH UNITS

Dr. A. Lakshmipathi recommended to the Government of Andhra Pradesh to start 2,000 village health units to work according to the plan of Arogya Yaatra, during the year 1958-59 at an estimated cost of Rs. 7/- lakhs. This proposal is under the consideration of the Government in the Development Department.

CHAPTER III

SELF-SUPPORTING EDUCATION *

Dr. A. Lakshmipathi writes :

"I have seen some institutions conducted by missionaries where the schools are worked only in the mornings, the evenings being spent either in agricultural operations or in some handicraft work for which the students are paid some wages according to the quality and quantity of the work done by them. In this way the institution is made more or less self-supporting and the students do not feel like fish out of water when they leave the school, as they have learnt to do some work enabling them to earn at least their livelihood. I have noticed that the atmosphere in which such schools are conducted is quite different from the dull routine of the stereotyped schools of the Education Department. The boys look more healthy and happy in the idea that they have turned out some useful work, and are physically of a better build. These schools are closed for a short period in the agriculture seasons when all their energy is required for field work. Even in cities, such of the boys as have an aptitude may be employed in trades and professions, thereby, enabling them to find a diversion. One meal may also be provided at schools for those boys who are in need or for all who wish to partake of the same in an interval of half an hour during the morning classes. Poor boys may thus be persuaded to run to the school with pleasure and their parents may also encourage them to go to school regularly.

* The above has been reproduced from the 'Harijan' of 11-9-'37

"If this scheme of half-day schools be adopted, the services of some of these teachers may be utilised for promoting adult education in the villages without any extra payment for such services. The building and other apparatus may also be useful in the same way.

"I have seen the Minister for Education, Madras, and presented a letter stating that the deterioration of health of the present generation is mainly due to unsuitable hours of education at schools. I am of opinion that all schools and colleges should work only in the morning, i. e. between 6 and 11 a. m. A study of four hours at school must be quite enough. The afternoon should be spent at home, and the evening should be devoted to games and physical development. Some of the boys may employ themselves in earning their livelihood, and some may help their parents in their business. The students will be more in touch with their parents, which is essential for development of any vocational calling and hereditary aptitudes.

"If we realize that body-building is nation-building, the proposed change, though apparently revolutionary, is according to Indian customs and climate and it would be welcome to most people.

A. L."

Of Dr. Lakshmipathi's suggestion for restricting school hours to mornings, I do not wish to say much save to commend it to the educational authorities. As to the more or less self-supporting institutions, they could not do anything else if they were to pay their way partly or wholly and make something of their pupils. Yet my suggestion has shocked some educationists because they have known no other method.

The very idea of education being self-supporting seems to them to rob education of all value. They see in the suggestion a mercenary motive. I have, however, just been reading a monograph on a Jewish effort in matters educational. In it the writer speaks thus of the vocational training imparted in the Jewish schools :

"So they find the labour of their hands to be worthy in itself. It is made lighter by intellectual activity, it is ennobled by the patriotic ideal which it serves."

Given the right kind of teachers, our children will be taught the dignity of labour and learn to regard it as an integral part and a

means of their intellectual growth, and to realize that it is patriotic to pay for their training through their labour. The core of my suggestion is that handicrafts are to be taught not merely for productive works, but for developing the intellect of the pupils. Surely, if the state takes charge of the children between seven and fourteen, and trains their bodies and minds through productive labour, the public schools must be frauds and teachers idiots, if they cannot become self-supporting.*

Supposing that every boy and girl works, not as a machine but as an intelligent unit, taking interest in the corporate work done under expert guidance, the corporate labour should be say after the first year of the course, worth one anna per hour. Thus for twenty-six working days of four hours per day, each child will have earned Rs. 6-8-0 per month. The only question is whether millions of children can be so profitably employed. We should be intellectual bankrupts, if we cannot direct the energy of our children so as to get from them, after a year's training one anna worth of marketable labour per hour. I know that nowhere in India do villagers earn so much as one anna per hour in the villages. That is because we have reconciled ourselves to the intense disparity because the city people have, perhaps unwittingly, joined in the British exploitation of the village.

HARIJAN,
11-9-'37

(M. K. Gandhi.)

The idea of Basic Education started with the above note of Gandhiji in the 'Harijan.'

* This applies very well to the studies of Aayurveda in Gurukulas.

CHAPTER IV

ADDRESSES OF DR. LAKSHMIPATHI

HISTORY OF THE YAATRA

Address of Dr. A. Lakshmipathi, B. A., M. B. & C. M., Bhishagrahna, President, Andhra Aayurvedic Board and Honorary Principal, Aayurveda College, Trivandrum, at a public meeting held at 5 p.m. on 6th January 1958, at Dhanwantari Temple, Eluru, in connection with the Arogya Yaatra conducted in Dendulur and Bhimadole Firkas, West Godavari District.

Shri Kaviraj Kandukuri Venkata Subbarao Garu, Chairman, Arogya Yaatra Sangam, presided.

Dr. Lakshmipathi said that the movement of Aayurvedic Health Expedition had a long history. He stated that he started the movement called "Arogya Yaatra" in the year 1938, because he found that the outlandish health propaganda conducted by the Health Departments of our Government were not congenial to our environments and did not reach the villages. He started the Arogya Yaatra from Vijayawada and visited the neighbouring villages of Mogalrajapuram, Royalpad and Gunadala with a band of Vaidyas, in March that year. The villagers welcomed the idea and offered to give land and provide other facilities for the work. But then, Dr. Lakshmipathi said, he was called away to Wardha by Mahatma Gandhi to take up work at Sevagram for the promotion of Aayurveda and for the cultivation of medicinal plants at Sevagram and at the basic educational centres. Since then, conditions have changed and after

CHAPTER IV

HISTORY OF THE YAATRA

20 years, he was able to re-start the movement in an independent India, and he hoped that this time this movement will take long roots in the country.

In the year 1946. Dr. Lakshmipathi said, he approached the Government of India and a resolution was then unanimously passed at the First Health Ministers' Conference, held at New Delhi, on 10th October, 1946, that the services of Vaidyas, Hakims, masseurs (Samvahanakas), Dayees (hereditary midwives) and Ustaads (physical training experts) be utilised in the National Health Programme after giving them the necessary scientific training and that they be absorbed into the auxiliary health personnel of the State.

The Chopra Committee, of which he was a member, recommended a short-term plan for the implementation of the resolution and prescribed a detailed syllabus for the training of Village Vaidyas in first aid, maternity and child welfare and rural sanitation. The old Madras State and the present State of Andhra Pradesh started classes and trained over 100 Village Vaidyas but they were not given an opportunity for rendering health service along with the other staff to the rural areas. He further stated that he had waited for over 10 years and had now proposed the Arogya Yaatra. The Aayurvedic Expedition is to be conducted in about 30 villages in the Dendulur and Bhimadole Firkas of West Godavari District, with the aid of 80 village vaidyas who are now undergoing training at Eluru, which is only about 4 miles from the area, and with the help of Grama Swarajya Sangam, which has been working in these villages for over 10 years. The scheme has been approved by the Government of Andhra Pradesh, who gave a token grant for its execution.

The Arogya Yaatra will be in charge of the Arogya Yaatra Samithi which will have one chairman and 7 vice chairman. The chairman of the Samithi is Shri Kaviraj Venkata Subbarao. Garu, Eluru. He will be in over-all charge of the whole movement.

Dendulur Firka is divided into the following divisions: 1. Scethampet, 2. Dendulur, 3. Jogannapalem, 4. Gopannapalem and 5. Vijayaray. Bhimadole firka and the 6 neighbouring village are taken as one division.

The daily routine of work shall be as follows:—5-30 to 7-30 a. m. Arogya Sankeerthanam. A procession starting from a temple, singing simple melodious health songs will proceed through all the

streets and bye-lanes of the villages upto 7-30 a. m. Simultaneously. the work of village cleaning, making manure and digging trenches for dumping night soil at suitable places will be taken up by the villagers under the supervision of the Vaidyas and the volunteers.

7-30 to 9 a. m. Bathing and break fast.

9 to 11 a.m. Attending to patients and giving free medical advice.

11 to 2 p. m. Mid-day meal and rest.

2 to 4 p. m. Interviews—Ishta Goshti—Discussion of general plan of work.

4 to 6 p. m. Public meetings.

6 to 8 p. m. Film shows.

Dr. Lakshmipathi said that he, as President of Andhra Aayurvedic Board, had suggested a scheme for following up the execution of the objects of the Aayurvedic Health Expedition (Arogya Yaatra) in 2,000 villages in Andhra Pradesh during the whole year. Andhra Pradesh consists of 20 Districts. The estimate of expenditure according to Dr. Lakshmipathi will be as follows.

1. Rent for the permanent habitation as Headquarters of the workers at Rs. 15/- per mensem for each village for 2,000 villages for one year. This will also be the area set apart for the herb garden in the village and play, ground.	Rs. 3,60,000
2. Cost of equipment such as Indian clubs. N. B. The villages will contribute 50% of the cost in kind, labour or cash.	.
3. One Ustaad, mechanic or village guide or village Vaidya—part-time on payment of an honorarium of Rs. 100/- per annum for each village for 2,000 villages.	Rs. 2,00,000
4. Supervising staff—one trained village Vaidya for one district with an honorarium of Rs. 100/- per mensem for 20 districts.	Rs. 24,000
5. Other contingencies.	Rs. 16,000
Total	Rs. 7,00,000

(The services of the existing Health personnel and the National Health Extension Service Staff will be utilised whenever available).

Dr. Lakshmipathi said that he had occasion to meet the President, and the Vice-President of India, the Union Health Minister and several Heads of Departments at Delhi and Hyderabad and he expected that with high-level consultations, his scheme would be implemented as early as possible. He was of the opinion that the only way of arousing the health and sanitation consciousness of the people was to make the villagers themselves feel the responsibility for taking measures for preventing disease without depending on the staff of the Departments of the Government. He hoped that the next generation at least would get rid of the glamour of imitating the Western habits, good or bad. He expressed the view that Aayurvedic propaganda alone could do this although he was of the opinion that the most modern methods of practical utility should be utilised in this process.

Dr. Lakshmipathi said, in the end, that he believed strongly in the movement, and he would conduct even if he were alone. He said that Srirama was alone and he, with an army of monkeys was able to conquer a mighty power. Dr. Lakshmipathi believed in the force of Aayurveda and he said that was true, the movement must also grow from day to day. The only thing was that God must give him the determination to carry it forward.

Dr. Lakshmipathi decried the attitude of people depending upon Government for things that they could do themselves. He requested Vaidyas to do all that was indicated by the Arogya Yaatra by their own self-exertion and with help from the people. He requested them to come forward to volunteer their services in this national effort. "If government aid is available, we shall welcome it, but let us stand on our own legs and learn to do without such help," concluded Dr. Lakshmipathi.

OUR SLAVE MENTALITY

Dr. A. Lakshmipathi, President, Andhra Aayurvedic Board, delivered an address at a public meeting held at the Dhanwantari Temple, Eluru, at 5 p.m., on 7th Jan, 58, explaining the objectives of his Arogya Yaatra. Dr. A. Lakshmipathi deplored the neglect of the Vaidyas in the use of Pancha Karmas, the five elementary processes that are essential for the successful treatment of any disease according to Aayurveda. A cloth has to be washed properly before it is dyed. Similarly, the tissues and cells are to be freed from the accumulated dirt before the administration of a suitable medicine.

With the neglect of these auxiliary processes, the auxiliary personnel such as "Samvahakas" (masseurs) and Ustaads (physical training experts) were also neglected. The process of Sneha and Sweda Karmas etc., i.e., the application of medicated oils and sweating the body by Vyaayaam and other methods also got into disuse. In fact, massage was one of the 6 arts which were traditionally encouraged in India by the kings and the people. Massage is divided into athletic massage, medical massage and hygienic massage i.e., Utsaadana, Samvaah and Kesamardhana.

Kousalam, this is the comprehensive name of the art. This was neglected by the Vaidyas and, therefore these professions languished in India.

As our worthy President, Dr. Rajendra Prasad, has been constantly reminding us, we have to conserve the precious heritage in our culture and to add to this great asset, what we can learn from modern sciences and culture.

It is very unfortunate that we developed an attitude of inferiority for manual labour as a result of foreign rule. The men and women of our younger generation have been very badly spoilt in this matter. When a young man has to work in the field, his first thought is that his white shirt will be spoiled. He often feels shy to remove his shirt which loosely hangs about and which is a hindrance to his work in the field. This morning, I sent for a barber for giving me my usual massage before bath. A young man came in. He had a white shirt and Dhoti. Both of them were a bit torn and they cannot be said to be very clean either. I asked him to tie up his dhoti and

to remove his shirt. His face showed that he did not like it. I suggested to him that his father must have been a good expert in massage. He felt proud and said that it was really so. When he started massage, he was tolerably good in his grip. The art is in his blood and bones. He would have also observed his father at his work in his earlier days. He said that this was the first time in his life that he was attempting massage. But I found him really good in his work and I encouraged him. I gave him a few lessons in that art. But his clothes used to come in his way. I did not press him to be more tight, as I did not wish to offend him. The work of the barber is called Ayuhkarma. This means the art of promoting life. There was no inferiority attached to it in our country. But as time went on, the caste system, which originally depended upon his Guna and Karma i.e., the skill and his action, become more rigid. Unfortunately today, the institution of castes and Varnas, which were originally intended to perfect a particular art or craft by avoiding cut-throat competition, have become obstacles to our national progress. We should understand the spirit of these institutions. We must strictly follow the better. The healthy growth of professions is necessary for the progress of the nation. We should shake off the slave mentality and inferiority complex attached to manual labour, if our nation is to rise up in the estimate of the world.

THE HIGH PHILOSOPHY OF ĀYURVEDA

Extract from the address of Dr. A. Lakshmiopathi, at a public meeting held at Sri Dhanwantari Temple, Ellore, at 5 p.m. on Wednesday, 8 January, 1958, in connection with Arogya Yatra conducted in Dendulur and Bhimadole firkas, West Godavari District.

Dr. Lakshmiopathi said that the philosophy of Āyurveda adopted the best trends of the Hindu philosophy of the various sects and schools of thought that existed in India from time to time. In fact, he said, that Āyurveda was the mirror of Indian civilization. Āyurveda was primarily an Ādhyātmika Science—the science of the spirit or the soul. Unless modern science accepted the existence of a super-powerful engineer, who directs the activities of man and of nature, these sciences including modern medicine could never reach the high level of Āyurvedic teachings. Even in the material world, Āyurveda had many lessons to teach the modern scientists. The most ignorant villager and the village vaidya still hold the secrets of some drugs only known to him even today. Āyurveda has its own theories of Rasa, Veerya, Vipaka and Prabhava to explain the properties and the pharmacodynamics of these herbs. Even if a hundred more colleges of modern medicine and a thousand more modern colleges of Āyurveda were started in cities, these secrets could not be explored and made available to the whole world. “We must have a first hand knowledge of this raw material at the fountain source in the village. I have myself learnt many things not from the books and scholars, but from the unknown and the unadvertised Harijan labourers who sometimes and very often cure their own diseases.

“We have unfortunately developed a slave mentality of not listening to things originating in our own country unless they are approved by so-called scientists of the West. The greatest scientists have accepted the limitations of science. But the fourth-rate scientists in India, in which class most of our allopathic doctors may be classified, are most vociferous in condemning Āyurveda as unscientific. They never care to learn what Āyurveda is.

“Our Governments have no time to devote, to study the merits of Āyurveda. The Governments are too wooden and inelastic to

effect any change in the methods of administration, which the British Government have bequeathed to us. Files upon files grow but no effective action is possible even if our Ministers are determined to favour Āyurveda.

“For instance, a resolution was unanimously passed at the first Health Ministers' conference held at New Delhi on 10th October, 1946 that the services of Vaidyas, Hakims, masseurs (Samvahanas), Dayees (hereditary midwives) and Ustaads (physical training experts) should be utilised in the National Health Programme, after giving them the necessary scientific training and that they should be absorbed into the auxiliary health personnel of the State. The Chopra Committee, of which I was a member, recommended a short-term plan for the implementation of the resolution and prescribed a detailed syllabus for the training of vaidyas in first aid, maternity and child welfare and rural sanitation. The old Madras State and the present State of Andhra Pradesh started classes and trained over 1000 village Vaidyas, but they are never given an opportunity for rendering health service along with their staff to the rural areas. I have waited for over ten years and have now proposed the Arogya Yatra, the Āyurvedic Health Expedition, in about 50 villages in the Dendulur and Bhimadole firkas, West Godavari District, with the aid of 80 village Vaidyas, who are now undergoing training at Ellore, which is only about 4 miles from the area, and with help of Grama Swaraj, a Sangham, which has been working in those villages for over 10 years. The scheme has been approved by the Government of Andhra Pradesh, who gave a token grant for its execution.

“It is necessary to attack the problem of the promotion of rural health at its foundation in the villages and to build up the structure of our national health from below.”

Dr. Lakshmiopathi said that unless our slave mentality was conquered, we could not reach our goal and, therefore, requested the Vaidyas and the people to shake off their lethargy and work for their own salvation.

“Tyaktwa Hrudaya Dourbalyam Uthista Paranthapa.”

INAUGURAL CEREMONY

Inauguration ceremony performed by Sri D. Senjeevayya, garu, Honourable Minister for Social Welfare and Labour Andhra Pradesh, at Seetampeta, West Godavari District on 10-1-58 at 10 a. m.

Dr. Lakshmipathi, who presided over the function in the course of his speech, said that the history of the Arogya Yatra was closely intermixed with his autobiography. He said. "I was born and bred at Madhavaram which belongs to the West Godavari District. I took from that village, five or six thousand rupees for my education and spent it in towns. I did not return even a rupee of the money or a rupee worth of labour or otherwise in exchange for this money. It has pained me very much to think of that loss that my village has sustained on account of myself. Large cities have been built up in India at the expense of the villages, which have been deserted and ruined.

"Although all food grains and milk are produced in the villages, the villages have not the good fortune of enjoying most of them. Although tons of milk and curd are regularly exported from the villages to the cities, most of children in villages do not probably know the taste of cow's milk or butter. Powdered milk and artificial milk are imported from foreign countries for villages, children and pregnant women.

"Although many of the elders who conduct our Government come from the villages, they are unable to work for the progress of the villages, because they are bound down to the wooden and inelastic machinery of the centralised administration. This unfortunate state of the villages has been painful to me and I have been feeling it for the last 30 or years. The Five Year Plans have been giving some importance to the village uplift but it has become only nominal, because we are unable to find any definite and remarkable change in the conditions of many villages.

"The villages, which were reputed for their wealth of crops and for their peaceful and healthy Asrama life and which contributed for the growth of flourishing cities, have now been deserted and have become notoriously poor and dirty. They resemble hell with all sorts of diseases and suffering. I visited the village of Seetampeta

yesterday and it pained me very much to see the bad roads with up and down ridges, deep pits and the streets and byelanes with rubbish thrown indiscriminately every where.

"The people have learnt to depend on the Government for everything and have forgotten their duty (Dharma) to themselves and to the society. If we attempt to do any constructive work, we are faced with want of money, disunion, ill-health and want of determination. There is no proper leadership and they are ill-disciplined. There are defects in every direction, This is the great blot on our hoary civilisation.

"Our worthy President, Dr. Rajendra Prasad, and our Prime Minister, Pandit Jawaharlal Nehru, and other leaders know all about this. They have confessed on several occasions their inability to remedy these defects in the villages of India. They have expressed how painful it was to them to witness these things. They are unable to find out ways and means for quickly rectifying any of these defects. I paid a visit to our President Dr. Rajendra Prasad, last week and I explained to him the objects and the plan of the Arogya Yatra to be conducted in Andhra Pradesh. He not only expressed his happiness regarding this innovation, but has also kindly sent us a donation of Rs.250/- as a practical demonstration of his high appreciation of the plan to help the Andhra Aayurvedic Board in its work. We have to offer him our heart-felt thanks for his deep love for Aayurveda. The whole country should learn a lesson from this.

"At least now, the villagers should wake up from their lethargy and should protect their health and wealth by following the fourfold principle: self-reliance, self-denial, patriotism and self-exertion.

"Charity begins at home. The villagers should not export anything that is required for the promotion of their health and long life without first utilising them for their own needs. This should be their first principle.

"Instead of attempting to treat diseases after their attack, the people should try to learn how to be immune from disease. The rules of health, propounded in Aayurveda, are of great help to us for this purpose. The Aayurvedic physician is a safe guide for us in these matters.

"The plan of our work is very hard to execute. Yet I appeal to you to step forward with courage and march with determination."

THE WORK BEFORE US

Extract from the address delivered by Dr. A. Lakshmipathi, at a public meeting held at Vijayaroy, West Godavari District. at 5 p. m. on Saturday the 11th January, 1958.

Dr. A. Lakshmipathi described in detail the work to be done by the Vaidya volunteers in all the villages to be visited by them during the course of the next days. The first thing that they should impress upon the people is the necessity of keeping their house and backyards clean. Every house-holder should be made to feel that the street is his own just as he feels that his house is his own. He should also feel that the street is his own and that the village is his own. He must keep his whole village clean, then the whole country will automatically be clean. The strength of the chain depends upon the strength of each link. Therefore, if we have to make the country beautiful, we should make every village beautiful. Dr. Lakshmipathi said that the volunteers and Vaidyns should start Arogya Sankeertanam processions, singing the simple and melodious songs that have been taught to them from 5-30 a.m. daily. This should go on covering all the by-lanes in the villages upto 7-30 a.m. Simultaneously with this, they should supervise the cleaning operations done by the villagers and encourage them in their work from 7-30 to 9 a. m.

The Vaidyas, volunteers and the people should engage themselves in personal cleanliness by applying oil to the body and doing massage and physical exercises fit for each man's constitution and then they have a bath daily during this period. Then they should enjoy the Pongal festival.

From 9 to 11 a. m., the Vaidyas of the village and Vaidyas who have come from outside should engage themselves seriously in attending to those who seek their help by giving free medical aid.

Between 11 a. m. and 2 p. m., they should have their food and compulsory rest, some engaging in indoor games. -Between 2 to

3 p. m. they should hold consultations with the elders in order to discuss plans about the work to be done during this week and to continue the same during the coming year. From 3 to 5 p. m. they should take part in games and sports such as "Chedugudu" 'Kokku' and Uppupatti, our national games. We should revive them. They are now becoming games of international importance. Chedugudu is an excellent game promoting not only strength & vigour but also courage and discipline for team work. From 5 to 7 p. m. they should hold public meetings where Arogya Sutras are sung and explained. From 7 p. m. onwards, they should show cinemas on health topics. Dr. Lakshmipathi said that he was glad to see the officers and men of the Five Year Plan Publicity there, ready to give them a feasting on health matters by film shows. Dr. Lakshmipathi said that the whole of India was watching their work. If in the firka they succeeded in setting an example to other villagers, the credit would go to them. He said that there should be no hurry and hustle in this work. The volunteers should take these things coolly and work up their way slowly and in company with the villagers.

Among other speakers who took part in the public meeting were Aayurvedacharya Mukkamala Venkata Sastri, P. B. Purushottama Ranjanadhacharya, M. Visweswara Sastri, Special Officer Indian Medicine, Hyderabad, and the Chairman and Secretary of the Reception Committee. Similar village cleaning campaign and other items of the plan are taken up at several centres the two firkas.

MY CONVERSION TO AAYURVEDA

Extract from the address of Dr. A Lakshmipathi, at a public meeting held at Dendulur, West Godavari District, on 12-1-'58 at 5. p. m.

Dr. Lakshmipathi related to the audience how and when he was converted into an Aayurvedic practitioner.

"In the year 1901, my mother became ill of some chronic uterine trouble. It was probably cancer. She was taken to madras for treatment. I was then a student of Junior B. A. class. She was treated in Gosha Hospital, Madras, but returned here without any cure. She was taken back to Rajahmundry. She was placed under the treatment of Sri Chitta Vajjhula Seetaramayya Garu, who was then a reputed physician at Rajamandry. My mother and myself were in the same house with him. I was then studying in the Arts College, Rajahmundry, in physics and chemistry section of the B. A. class. I was also assistant to the Vaidya as a compounder, whenever I was forced. The Vaidya had in his dispensary some powders such as that of Ginger, Jeerakarra, Triphala, Trikatu, Sunamukhi, Nelavemmu and prepared medicines such as Sooryavarti, Seetansurasam, Anandabhairavi and some Kuppi-kattu medicines. In another almira were some English medicines such as Tincture Belladone, Tincture Digitalis, Tincture Nuxvomica, Spts, Ammonia Aromaticus, Spts. Eetheris Nitrosi, Tincture Ferri Perchloride, Tincture Cardomamco, Vinum Ipecac, Pulvis jalapco, Ammonia Carbonate and other medicines to fill up the almira. He had a few English books with him and Husband's 'Practice of Medicine' was one of them. I do not know where or whether he underwent any training in Allopathic method. In the Aayurvedic side, he had many printed and manuscript books in the Telugu language, such as Basavarajeeyam and Vaidyachintamani and so on.

"One day, when we were preparing Swarnavangam, I found more or less the same preparation in my book Newth's Chemistry and I pointed out to him that the identical preparation called for gold and that it was sulphide of tin and that there were no mercury or arsenic and other drugs which were added originally in the composition of the preparation. They have disappeared by the

heat applied in the process of preparation. He was naturally surprised and took great interest in finding out what changes were taking place according to modern chemistry in the preparation of the several compound medicines, made according to Aayurveda. I was thus introduced to the comparative study of Aayurveda and Allopathy. This went on for about a year.

"One day in April 1902, as I was passing along the road in Imnaspeth, Rajahmundry, one Daavuluri Umamaheswara Rao Garu, who was then a Deputy Collector there and under whom I served previously as Taluk Gumasta, called me in and told me that the District Board, Godavari, resolved to sanction a stipend of Rs. 30/-per mensem for a student to study in the medical college at Madras and that an announcement to that effect was made in the District Gazette. He wrote an application himself and asked me to go to Ganapavaram, 10 miles from Tadepaligudem, and present the application personally to the Collector. I had the application recommended by Mr. Mark Hunter, Principal, Arts College, Rajahmundry, and started at once by the local train to Tadepalligudem and reached Ganapavaram by bullock cart early in the morning next day I saw the Collector going slowly on horseback on the road & got down from the cart and presented my petition to him. The Collector stopped the horse and took my application. After reading it, he asked me "Well young man, why do you want to study medicine?" I at once replied to him that my mother was suffering from some uterine trouble and that she was treated in Gosha Hospital, Madras. She was not cured there and we got her treated by an Aayurvedic physician at Rajahmundry. I had then studied Aayurveda under him but I had some doubts, which I wanted to clear by joining the Madras Medical College. He saw the strong recommendation made by our college principal. Although there were nearly a dozen applications with other recommendations, the Collector selected my name & thus I became an M.B. & C.M., which was a rare qualification for Andhra at that time. By the time I passed out of the college, I was afraid of the use of the Aayurvedic medicines, although I was very familiar with them, because I thought that Seethamsurasam contained arsenic, which was a poison, and Anandabhairavi contained aconite, which was a virulent poison, and so on. My views against Aayurveda became so much, that, in an introduction that I

wrote for a book in Telugu on *Allopathic Materia Medica*, I wrote that the Vaidyas in India are committing murders by using poisonous drugs. I was so ignorant at that time that I did not know that there was some purification process in Aayurveda which made these medicines containing the poisons fool-proof so that even an illiterate man or woman with some great skill and effect some cures even where Allopathic medicines fail.

"In the year 1914, Dr. T.M. Nair introduced a bill in the Madras Legislative Assembly for the registration of Allopathic practitioners. The name of Dr. M. Krishnaswamy Iyer, M.D, was removed from this Medical Register, because he agreed to supervise an Aayurvedic dispensary for which Sri Kalavala Kannan Chettiar a rich merchant of Madras, endowed one lakh of rupees. I was then just thinking of getting my name registered in the Medical Register, but as a protest against the action of the Medical Council. I did not get my name registered up to now. I then began to study Aayurveda under Pandit D. Gopalacharyulu and acquired sufficient knowledge of Aayurveda, so that I was elected President of the 3rd Andhra Aayurvedic conference held at Vijayanagaram in the year 1919.

"I started the Andhra Aayurvedic Pharmacy in the year 1920 which had medical branches and agencies throughout India. But on 20th September, 1920, Sri Vaidya Ratna Pandit D Gopalacharyulu died suddenly, leaving the college having nearly 50 students on its roll, helpless. I had to step in and I took charge of the college as its principal.

"The extraordinary wave of influenza, which caused great havoc in the year 1919, helped me to get experience in the use of Aayurvedic medicines, because Allopathic medicines, which I was using in my practice, were not available for any cost in the market. I was therefore, compelled by virtue of necessity to use Aayurvedic medicine more effectively. Since then, I never used Allopathic medicines in my practice and my determination to do so made me research minded, so that I could find an Aayurvedic substitute for all Allopathic medicines.

"For want of time. I gave up performing any surgical operations, particularly catarrh operations, after which I confined myself to medicat practice. I do not use any medicine for injections

also since then. The further history is well known to all of you. Finding that the modern methods of Health Propaganda did not reach villagers, I started the Arogya Yaatra in the year 1938 on my 58th birthday, 3rd March that year. When the Congress took up the Ministry in our State, I was called away to Sevagram at the orders of Gandhiji. And now 10 years after our country secured complete independence, I have restarted the Arogya Yaatra for the benefit of the villagers. I appeal to you to carry on this difficult task in order to protect the fair name of India."

NON-VIOLENT APPROACH TO TREATMENT

During the course of his address to the gathering at Kovvali, one of the centres of Arogya Yaatra on 13—1—1958, Dr. A. Lakshmi pathi said that approach to the treatment of disease was different in Aayurveda and Allopathy. Aayurveda attempts to improve the constitution of the patient irrespective of the seat of the disease and the microbe that is responsible for its action. Once the digestive fire (Agni) is brought to normal and the physical and mental frame of the patient is fortified, the disease often retraces itself. A cause is required for starting a disease but no such cause required for the cells and tissues to regain their normal condition if the offending agent is removed. Nature itself will complete the cure when the offending process is checked.

Arguing in this manner, Dr. Lakshmi pathi said that all disease was one, namely, the disturbance in the equilibrium of the cells, tissues and debris (Dosha Dhaatu Sammoorchanam) and all cure was one, namely, restoration of equilibrium (Dhaatu Saamyata).

Recently, he said, he treated a bad case of tubercular disease of the kidneys where both the kidneys were seriously damaged and where the case was declared as incurable after giving several kinds of injections for two months as an in-patient in the General Hospital at Hyderabad. It was also considered as incurable because both the kidneys were damaged. The cure was not accidental. He said that his approach to the treatment that he adopted was rational and deliberate. "According to Aayurveda, I made the diagnosis of the disease as Pitta predominance assisted by a disturbance of Vaatha mechanism where Kapha is on the decrease. The object of my treatment is to reduce Pitta and to increase Kapha. For this purpose, I deliberately used a diet consisting of large quantities of coconut water and grape juice diluted with water. The medicine used by me in this case is not at all important. The method of diagnosis and the line of treatment are most important. Within a short time the terrible burning sensation in passing urine was relieved. The awful smell in the urine disappeared. The urine became clear and free from pus. The mental condition of the patient altogether changed. She wanted more food. A patient who was reduced from 200 pounds to 105 pounds and who was

was merely skin and bones, began to get better appetite and improved by 5 or 6 pounds within a month. The diet was gradually increased to normal food but rich in fruit diet. The improvement continued. The patient became cheerful. She has been sleeping well without any sedative drugs which she was using and which did her great harm. After three months now, she gained 12 pounds and she is no more a patient. I can guess what the condition of the kidneys is at present. But I do not know whether the tubercle bacilli have disappeared or not. The patient does not care for it. What she wants is the relief of distress and cure of the disease. The presence or absence of tubercle bacilli is only of academic interest.

"Recently in my tours, I observed cases of cancer of different organs in different parts of India being treated with remarkable benefit with different medicines by different Vaidyas. One Hakeem in Jaipur used in a case of cancer of the rectum insignificant doses of Rasakarpoora in combination with certain herbs and a diet consisting of Palak, Menthi, green gram and wheat without salt. He allowed ghee but prohibited milk in this case.

"The relief was surprising. The size of the cancer was reduced to half within a week. The agony disappeared. The patient was sleeping comfortably and had discarded the sedative pills. It is possible that the cancerous process may retrace itself. In another place, the Vaidya has been using Tiktakakuggulu, in another Sivajitica which is a preparation of copper, was used in another case of cancer. At Muktyala, in Andhra Pradesh, the Aayurvedic physician in charge of the Cancer Research Institute uses Roudrarasa mentioned in Vaidya Chintamani (a Telugu book) for the treatment of Arbuda (malignant tumour). Roudrarasa is made as follows: Take purified mercury and purified Gandhaka in equal parts. Grind for twelve hours, add Pippalichoornam in equal parts to both and rub again with the juice of betel leaves, Bala, Tanduleyaka, Punarnava and cow's urine for twelve hours each. Submit the whole to a small fire. Grind and make pills of 2 grains each. One pill is to be taken morning and evening with a little water. By the use of this medicine, the patients in the Cancer Hospital at Muktyala are showing considerable improvement. They are cheerful. Their suffering is removed and they are de-

ping with out any sedatives. Individual care is also bestowed upon each patient as regards the oil bath and diet and attention to their individual complaints. An atmosphere of devotion to God and prayer to the Almighty are encouraged. It may take a long time to establish a complete cure of cancer as a disease, but it is so far very satisfactory that a line of approach to the treatment of cancer has been found out. Similarly in the treatment of obstinate cases of rheumatoid arthritis, leprosy, leucoderma, and diabetes. I found that some Vaidyas cure these diseases, every Vaidya having his own medicine and method of treatment. Speaking generally, small doses of castor oil combined with other medicines is used in rheumatism. Twvaraka, Kadhira and bark of an old neem tree and neem oil are used in leprosy, Indigo, Bhallataka and cow's urine are used in Leucoderma, Bimba, Kaaravella and Gudmar are used in diabetes. But the drug is not everything. The attention to the constitution, diet and habits is most important. The Aayurvedic approach is not to kill the germ but to so alter the constitution of the individual as to make it immune to disease."

SUPERIORITY OF AAYURVEDA

Presiding over a public meeting at Gopannapalem, West Godavari District, on the occasion of Arogya Yaatra, Dr. A. Lakshmipathi said :

"I am going to speak you today on the superiority of Aayurveda over Allopathi in serving the people of this country. Nearly 85% of the population lives in our villages. In spite of the huge expenditure on medical colleges and hospitals and in spite of the crores of rupees spent on importing foreign medicines and drugs, the modern system of treatment and the modern health propaganda have not reached the villages. For the whole of the Dendulur Firka, consisting of about 47 villages and having a population of 60,000, there is only one primary health centre at Dendulur. Even that is not properly equipped and people are running to cities for medical and surgical help.

"We have taken the census of Vaidyas in Dendulur firka. There are 42 Vaidyas in the 47 villages of this firka. All these have been enjoying the confidence of the people. They are independent men commanding great respect in their own place. There may be many others quite competent in their own way but who do not care to advertise themselves.

' By allowing the common herbs to grow in one acre of land protected from destruction by men and animals, it would be sufficient to meet the ordinary medical need of the village. In fact, disease is unnatural. It is generally the result of an offence that an individual has committed against himself. Hospitals must be treated like jails for the reception of convicts. If persons who offend against society are punished, those who offend against themselves should also receive a suitable punishment. It should, therefore, be our purpose not to encourage building more and more hospitals, but to do such propaganda as would help in emptying the hospitals. This is not a more utopian scheme. When in Western countries, they have succeeded in providing free medical aid for all sorts of diseases arising out of committing vice, we in India should go the other way and avoid vice by teaching the people self-control. This is the old Indian method of Sadvritam, which should be revived.

"An organisation consisting of 5 persons from ereh village including the village Vaidya should be constituted to follow up the programme that has been chalked out by us. This should be done before the Arogya Yaatra is completed for the present, on 17th instant at Bhimadole.

"I see that there is great enthusiasm in the people of this firka to support Aayurveda. One family of Velamaty Seetarama Brah-mam and brothers of Kovvali came forward with a donation of Rs. 5000/- for building an Aayurvedic hospital in their village. More help is very likely to come forward in the same village and from the other villages in the firka for accomplishment of this laudable object. I am told that in three more villages in this firka, liberal-minded people are ready to have an Aayurvedic institution in their own village. People are competing with one another in welcoming this Arogya Yaatra to their places. We should not allow this enthusiasm to die out."

Proceeding further, Dr. Lakshmipathi said that the people should realise that "Aayurvedic treatment is not only cheap, but it is more effective in the long run in protecting their health. The glamocr for all things modern, whether they are good or bad, should go. Unhealthy habits, such as smoking and drinking coffee and tea indiscriminately, laziness and dislike for manual labour, should also go. These are the causes of degenerative diseases, which have now become more destructive of human life at a young age than the infective diseases which have now been checked in the West. In our country, self-control should be developed for promotion of positive health, so as to make people immune to disease and untimely death. There is no other way. "Naa anyah panthaa lyanaaya vidyate"

After this introduction, Dr. Lakshmipathy delivered his address on the superiority of Aayurveda over Allopathy.

Proceeding further, Dr. Lakshmipathi said that those who did not believe in the efficacy of Aayurveda sometimes asked the question—"Why should we go in bullock cart when airplanes are now available for us? Similarly, why should we have the antiquated Aayurvedic treatment when we have the progressive and rapidly active treatment by modern medicine?"

Dr. Lakshmipathi said that he would answer the question by giving them ten reasons to explain the superiority of Aayurveda—(See page 567 for the 10 reasons). Dr. Lakshmipathi, continuing, said, "As I told you in my lecture the other day, we should shake off the slave mentality, to appreciate the superiority of Aayurveda over the Allopathic system. now patronised profusely by our own Governments."

AWARD OF PRIZES

Extract from the address of Dr. A. Lakshmipathi, at a public meeting held at Jogannapalem at 5 p.m. on 15-8-1958, in connection with Arogya Yaatra in the Dendulur and Bhimadole firkas. West Godavari District.

From Gangannapalem, the Arogya Yaatra party, led by Dr. A. Lakshmipathi, marched on foot singing health songs, to Jogannapalem, a distance of 3 miles, which they reached at 5 p. m.

A public meeting was held in the Siva temple where people from surrounding village gathered to receive the party. This was the sixth and last centre in the Dendulur firka. The chairman of the Village Panchayat, Shri Kurucheti Narasimha Raju, Presided over the meeting. The meeting commenced with the singing of health songs by a young boy.

After several speakers addressed the gathering on the plan and importance of Arogya Yaatra, Dr. Lakshmipathi presented one mango leaf to those who set an example to others by their meritorious conduct during the period of the Yaatra. The first award was given to Shri Chadalavada Subbayya. A brilliant boy of about 10 years, by name Ch. Aluri Muralikrishna Rao, who led others by acquiring proficiency in singing health songs, was blessed by Dr. A. Lakshmipathi while presenting him an award.

Name of the donor	Amount of donation	Nature of charity	Address
1. Shri Y. Sitaramabrahmam and brothers.	Rs. 5,000/-	Aayurvedic dispensary	Kovvali, W. G. Dt.
2. Shri Ch. Anjaneyulu	Rs. 1,000/-	For herb and one acre garden	Gopannapalem W. G. Dt.
3. Village panchayat	Rs. 5,000/-	For constructing herb & Aayurvedic Dispensary	Gangannagudem W. G. Dt.
4. Village Panchayat	Rs. 6,000/-	-do-	Mediniraupalem W. G. Dt.
5. Shri Ram Maruthi Sangham	Rs. 5000/-	-do-	Jogannapalem W. G. Dt.

The above list of members who gave donations for constructing hospitals in the places noted against their names were awarded the mango leaf as a token of appreciation of the services rendered by them to the country. Speeches suitable to the occasion were made. In all Rs. 20,000/- and 5 acres of land for herb gardens were donated as gifts. A public meeting was held under the auspices of the Grama Sangh of that village. Some resolutions were then passed and the meeting terminated with a vote of thanks (For text of resolutions, see page 570)

It was also resolved that the Arogya Yaatra be henceforth termed as Aayurvedic Arogya Yaatra as the villagers have been donating for starting of Aayurvedic dispensaries and herb gardens and for promotion of sound health of the people.

CLOSING FUNCTION

Report on the proceedings in connection with the Arogya Yaatra led by Dr. A. Lakshmipathi in Bhimadole firka, West Godavari District.

Arogya Yaatra party led by Dr. Lakshmipathi reached Bhimadole, where Sri Vaidya Raj Rudrapaka Viyyeswara Sarma and the President, Panchayat Board, received them at 6 a.m. As usual there were demonstrations of massage by Professor C. A. Adam, who was specially invited from Hyderabad, and Vyaayaama by Dr. A. Lakshmipathi.

Dr. Lakshmipathi was seated on a decorated bullock cart to which 20 pairs of bulls were tied and the procession, starting at 9 a.m., wended through the main thoroughfares of Bhimadole and reached the Travellers' Bungalow at the end of the village. A meeting of the teaching institutions' special committee of the Andhra Aayurvedic Board was held, where, among several resolutions passed, was one in which it was resolved to authorise the President, Dr. Lakshmipathi, to appoint a sub-committee to explore the possibilities of starting an Aayurvedic College or 'Gurukula' where qualified Vaidyas, to work at village level, can be trained at the four centres in Dendulur firka where the villagers offered Rs. 5,000/- each and one acre of land for herb garden.

In the evening, it was resolved at a meeting of the special textbook committee of the Andhra Aayurvedic Board to appoint a sub-committee of three members to prepare syllabus for the Village Vaidya course and submit it to the Board within a fortnight. At another meeting of the special Aayurvedic Fund Committee of the Board, it was resolved to request the Government to print and publish one lakh of copies of "Arogya Sutra", (Rules of Health) which was found very popular in the villages. The estimated cost was Rs. 5,000/-.

A public meeting was held, which was presided over by Shri Mulugu Visweswara Sastri, Special Officer, Indian Medicine, Hyderabad at 6 p.m. Sri Challa Krishna Murthy Sastri, a learned Pandit, delivered a very instructive address on the value of Aayurveda and

and on the duty of the people to revive its usefulness to the public. Dr. Lakshmipathi introduced Prof. C. A. Adam on whom he awarded the title of Professor of Vibratory Massage, and presented him with a mango leaf in a traditional manner as a mark of honour, which is languishing by the neglect of the Vaidyas, on people. Among those who partook in the public meeting was Shri Vetur. Sankara Sastri, physician-in-charge, Cancer Hospital Muktyala.

AAYURVEDIC ENCYLOPAEDIA

CHAPTER V

CENSUS OF VAIDYAS IN DENDULUR FIRKA

Centre	Sl No	Name of Village	Name of Vaidya	Age	Years in practice	Type of Practice	Qualification	Remarks
Gopanna-palam	1	Mundur	Boodati Satya-narayana	35	16	Ayurveda	Hereditary	Barber
	2	"	Konduri Nasimulu	42	10	"	"	"
	3	"	Konduri					
	4	"	Subbarayadu Shaick	65	40	"	Experience	"
	5	Vegivada	Bandunni Sahib Narayana	63	40	"	Hereditary	[dan Mohamma-
	6	MediniRao Gottumukkerla		50	15	"	Experience	Barber
	7	palem	Nagabhooshanan	60	30	"	"	"
		Sreerama-varam	Vaanapamula Chinnalu	65	20	"	"	"
	8	"	Kannireddi Ramadas	55	20	"	"	"
	9	"	Kagireddi			"	"	Kamma
	10	Joganna-palem	Sreeramulu Peddajunni-Subrahmanyam	58	25	"	Hereditary	"
				48	14	"	Experience	Goldsmith

Centre	Sl No	Name of Village	Name of Vaidya	Age	Years in practice	Type of Practice	Qualification	Remarks
Gopanna-palam Kovvali	11	Joganna-palem	Gudapati Devanandam	39	12	Ayurveda	Experience	Harijan
	12	Kovvali	Kondikonda					
	13	"	Mitra Prakasa Rao Manullapalli	40	17	"	Bhishak	Brahmin
			Sambasiva Rao	35	12	"	Vaidya Vidwan	Sivaarchaka
	14	"	Vedantam Seeta-Ramacharyulu	35	12	"	"	Vaishnava Archaka
	15	"	Manda					
	16	"	Satguracharyulu Velamasi	30	10	Aayurveda	Hereditary	Goldsmith
	17	"	Venkateswara Rao	35	15	Prakriti	Experience	Kamma
	18	"	Vadlapatla Januayya	48	20	Salya Tantra	"	"
	19	"	Vadlapatla Sangaraju	60	12	"	"	"
	20	"	Motaparti Subbayya	45	20	Bhootavaidya	"	"
	21	"	Kothuri Subramanian	50	15	Vrana Vaidyam	"	Barber
Potunuru	22	"	Doss	70	35	Bhootavaidyam	"	Harijan
			Dosapadu Rodhuri					
	23	Potunuru	Mallikarjuna Rayanapati Veerayya	50	15	Aayurveda	"	Goldsmith
				60	40	"	Hereditary	Sivaarchaka

Centre	SI No	Name of Village	Name of Vaidya	Age	Years in practice	Type of Practice	Qualification	Remarks
Potunuru	24	Potunuru	Chavali Mallayya	70	50	Ayurveda	Hereditary	Saivaarchaka
	25	"	Chavali Hanumantha Rao	32	12	"	"	"
	26	"	Chavali Nageswara Rao	35	15	"	"	"
Denduluru	27	Denduluru	Sobhanadri				Vaidya	
	28	"	Narasimhacharya	43	23	"	Vidwan	Vaishnavarchaka
	29	"	Guju Lakshman Dasu	35	15	"	Experience	Harijan
	30	"	Sishita Subbarao	46	15	"	"	Brahmin
	31	"	Achanta Lingaraju	45	20	Allopathy	L. M. P.	Brahmin
	32	"	Kodali Venkataswaram	38	5	Local fund Dispn.	Experience	Kamma
Ganganna-gudam	33	Ganganna-gudam	Yollapalli Pullayya	43	18	Ayurveda	Hereditary	Goldsmith
Gopanna-palem	34	Gopanna-palem	Yagavaram Mamidi Sarweswara Rao	30	12	"	Experience	Kaapu
Vijayaroy	35	Vijayaroy	Prativaadi Bhayankara Srinivasaacharyulu	55	30	Ayurveda	Hereditary	Ayurvedacharya Vaishnava
	36	"	Prativaadi Bhayankara					
	37	"	Ranganadhacharyulu	44	10	"	Practitioner.	"

Centre	SI No	Name of Village	Name of Vaidya	Age	Years in practice	Type of Practice	Qualification	Remarks
Vijayaroy	36	Vijayaroy	Kandalam Tiravengada Charyulu	43	10	Ayurveda	Bhishag, Village Vaidya	Vaishnava
	37	"	Prativaadi Bhayankaram Appanai Acharyulu	45	20	"	Hereditary, Bhishag Vaidya Vidwan	"
	38	Rayanna-palem	Paudi Veerabhadrayya	30	10	"	Experience	Kalali Toddy drawer
	39	"	Shaik Mastan	40	10	"	Experience	Mohammadan
	40	"	Sooryanarayana	35	10	"	Experience	Goldsmith
Seetampeta-1	41	Seetampeta	Chaganti Swami	65	25	"	Village Vaidya	Barber
	42	"	Chaganti Satyanarayana	28	10	"	"	"
	43	"	Mamillapalli			"	Hereditary	"
	44	"	Subba Rao	42	15	"	"	Sivaarchaka
	45	"	Darlamadugu Shaik Pedamastan Sahib	48	12	"	Experience	Mohammadan

Dated 11-1-'58

Sd/- Toluganti Venkataramiah

Sd/- Alluri Lakshminarayana,

Sd/- Mallela Sobhanachala Chakravarti.

REMARKS

Of the 44 Medical Practitioners, one is an L. M. P. employed in local fund dispensary at the Primary Health Centre at Dendulur. One is an Homoeopathy practitioner and one Prakriti Vaidya and the rest are Aayurvedic Practitioners. Of these, only one is a registered Aayurvedic Practitioner, 4 have passed Bhishak, 3 have passed Vaidya Vidwan and one passed Aayurvedacharya, but they are not registered. Two practise surgical work and two Bhoota Vidya (Mental Diseases). Of these 8 belong to barber community, 2 Vishnuarchakas, 6 Sivaarchakas, 5 Vaishnavas, 3 other Brahmins, 5 goldsmiths, 7 Kammas, 1 Kappu, 3 Harijans, 1 Toddy Drawer, 3 Muslims.

There are forty-seven villages in this firka, three of which are uninhabited and their names appear only in village accounts. Therefore there are forty-four Vaidyas in the average in the forty-four inhabited villages.

However, there are 10 Vaidyas in one village, i.e., Kovvali, 4 Vaidyas in Vijayarey, 4 Vaidyas in Mundur, 3 Vaidyas in Sreeramavaram, 4 Vaidyas in Potunur, 5 Vaidyas in Dendulur, 3 Vaidyas in Royannapalem, 3 Vaidyas in Seetampeta, 2 in Jogannapalem.

Thus there are 38 Vaidyas in 9 of the forty-four villages and 6 Vaidyas are in 6 villages; 29 villages are left even without a single Vaidya. This shows the real state of medical relief in these villages.

CHAPTER VI

LESSONS OF AROGYA YAATRA

IMPORTANCE OF GURUKULAS IN AAYURVEDA

As our worthy President Dr. Rajendra Prasad, said, the goal of the medical education should be to empty the hospitals by teaching the people to be immune to disease and not to multiply the number of hospitals by helping the increase of disease on the one hand and attempting to cure them on the other. Aayurvedic method of approach, which attempts to prevent disease by promoting self-control (Aatma Nigraha), self-reliance (Aatma Viswaasa), self-denial (Aatma Tyaaga) and self-help (Swayam Sahaya) is the best approach to the problem of rural health in India.

The sanitary and health consciousness of the villagers has been awakened by the Aayurvedic approach through the Arogya Yaatra, in the Dendulur Firka. The people who run away at the sight of the Health Inspector in fear of vaccination or inoculation have responded with wild enthusiasm to the call of Arogya Yaatra. The people of the Dendulur Firka suggested decentralisation and demanded Grama Swarajya, self-government for the villages, even in matters of protection of the health of villages and in turning out the village Vaidyas as qualified to suit the needs of the villages. The present system of establishing one Primary Health Centre for the whole Firka, having a population of 60,000 has been a thorough failure. The people have to run to the cities when they get ill, because this centre is ill-equipped to meet any emergency. Crores of rupees are spent on medical education and many more crores on importing foreign medicines

of doubtful value, adding to the economic drain of the impoverished land. According to the census taken by workers of this Arogya Yaatra, there are 42 Vaidyas enjoying the respect and confidence of the villagers in the 47 villages, attending to their needs as best as they can. Three of the villages in the Firka are uninhabited villages existing only in the village accounts. There is, therefore, about one Vaidya for each village as the proverb goes. The problem is how to enlighten these 42 Vaidyas and to make them up to date and more useful and how to turn out qualified Vaidyas for their future needs.

PROMOTION OF POSITIVE HEALTH

The promotion of positive health depends upon the development of good habits (Sadvritam), suitable to our climate and temperament and economic conditions of the people. This is done by practising Sadaacharaas, such as bathing (Snaana), Vyaayaam (individual physical education), Asanaas and Kreedas (indigenous games and sports), which require no investment of capital and by the development of personal and hygiene.

The villagers have shown their enthusiasm in a practical manner by coming forward to contribute half the cost of maintaining the village hospital and the village medical school (Gurukula). They are even prepared to bear the whole burden, if Government help is not forthcoming from the fourth year of starting. They only want grant-in-aid for the first 2 years in order to shake off the age-long lethargy. Of the 6 Panchayats that I visited, I spent only one hour for the opening ceremony in one Panchayat and promised to visit the village again, but I could not do it. So, I could not do any constructive work at that place.

In four other centres that I visited, the people promised to contribute Rs. 5,000/- each for the village hospital and Gurukula and one acre of land for the village herb garden and handed over documents to me to that effect. In one centre, one acre of land was offered for the herb garden. The time was too short for doing constructive work satisfactorily. It is said that more help would come forward in the shape of cash, kind and labour, if a beginning is made and if they are allowed to manage their own affairs and their energy and resources are canalised for fruitful work.

BASIC EDUCATION THROUGH AAYURVEDA

The application of the principles of Basic Education (Nai Talim) to the problems of health is the only possible way to produce good and permanent results in India. Basic Education Schools have to be started in at least 4 or 5 centres in this Firka. In fact Aayurveda was taught in Innia compulsorily to all, and not exclusively to the Vaidyas who practised medicine as a profession. The word Vaidya means a learned man. This is the Srivodaya Ideal. The Gurukula system is most suitable to the genius of India. It is less costly for the parents and the Government and it is the best method of giving real education to the disciple.

AAYURVEDA GURUKULA AASRAMAM

The wild enthusiasm created in the villagers of the Dendur Firka by the Arogya Yaatra should not be allowed to die out for want of leadership that is necessary for the promotion of the right kind of education. I have therefore, decided, at the earnest request of the villagers to open an Aayurveda Gurukula Astamam, at Dendur and four or five basic schools of the Gurukula type (one at each centre) teaching Aayurveda as the basic subject for turning our healthy youths and village Vaidyas and also proper teachers for the next generation. We shall take all help from modern sciences and modern medicine and shall work in co-ordination with the primary health centre, the already exists at that places.

SUITABLE SYLLABUS AND EXAMINATIONS

As President of the Andhra Aayurvedic Board. I introduced this subject at the meeting of the Board held at Bhimadole on 17th January, 1958, and succeeded in constituting a sub-committee for the preparation of a suitable syllabus and a scheme of examinations for the Aayurvedic Gurukulas to be started immediately, in the four centres of the firkas, where the villagers have come forward with their support.

The course of studies shall consist of stages:—

Pre-basic:—3 years from the age of 5 to 8,

Basic:—6 years from the age of 9 to 14,

Post-basic:—4 years from the age of 15 to 19 and

Post-graduate:—2 or 3 years from the age of 20 to 23 years.

There will be two sections in the post-basic and post-graduate courses—one section in which the medium of instruction will be the regional language (Telugu) and in the other section, the teaching will be through the medium of Sanskrit. A working knowledge of English will be given commencing from the age of 12.

Future village Vaidyas will be drawn from post-basic-graduates and the teachers for Gurukulas will be drawn from the postgraduates

COMPLETE AND FLAWLESS AAYURVEEA

I am for Samagra Aayurveda—a complete and flawless Aayurveda—where whatever is of practical utility should be utilised for the promotion of Aayurveda in all its entirety consisting of the Ashtaangaas, from whatever source the knowledge may come. I am not for Suddha Aayurveda, if Suddha Aayurveda means that no knowledge beyond what is contained in the text books should be utilised in teaching. But, if Suddha Aayurveda means that the fundamental principles and theories of Aayurveda should not be violated, I shall support it.

I quite realise that the study of Aayurveda has to be encouraged at four level:—

1. At the Centre by promoting research.
2. At the State Level by high grade Aayurvedic colleges, where experts in Aayurveda, with a working knowledge of modern medicine have to be turned out and where post-graduate training is encouraged and by teaching the fundamental principles of Aayurveda to the students in the colleges of modern medicine.
3. At the District Level by encouraging Aayurvedic colleges and Gurukulas for the Diploma course for the supply of the large number of general medical practitioners who are required for the country.
4. At the Village Level by refresher courses to existing Vaidyas and by starting Aayurvedic Gurukulas or Basic Schools with Aayurveda as the special subject. These Gurukulas will be separate from the ordinary basic schools. The number of admissions in these

Gurukulas may not exceed five in any one year and twelve for the whole course, so that over-crowding may thus be avoided. Research in Aayurveda has to be encouraged at all the four levels.

I propose to start the Aayurvedic Gurukul Asramam at Dendulur from April, 1958 with the help and co-operation of the people and the Government of Andhra Pradesh. I have decided to devote the major portion of my life activity to this great effort for the preservation of our traditional culture through the promotion of Aayurveda in our land.

APPENDIX I

I

FINANCIAL STATEMENT.

ELLORE
8—3—1958.

Minutes of the meeting of the Andhra Aayurvedic Fund Special Committee held at Dhanwantari Kalaasramam, Ellore, at 12 noon on 8th March, 1958.

Members Present.

1. Dr. A. Lakshmipathi, B.A., M.B. & C.M., Bhishagratna,
2. Kaviraj Sri U.S. Mohan
3. Sri Mukkamala Venkata Sastri
4. Rudrapaka Viyyeswara Sarma
5. Kandukuri Venkata Subbarao
6. Sri Mallela Sobhanachala Chakravarti

The accounts of the receipts and expenditure of the Arogya Yaatra held from 10th to 17th January, 1958, Were examined and passed for Rs. 966—4—6. There was an excess of expenditure of Rs. 116—4—6. over income namely Rs. 500/- sanctioned by the Andhra Aayurvedic Board, Rs. 250/- donated by the President, Dr. Rajendra Prasad, and Rs. 100/- sanctioned by the Government of Andhra Pradesh,—Total Rs. 850/-. It was unanimously resolved that this amount of Rs. 116—4—6 be sanctioned as the expenditure was considered to be absolutely necessary and justified and that the amount be paid from the Aodhra Aayurvedic Fund. It was also noted that 4,000 copies of the songs of Arogya Sootraas were left in the stock, valued at annas two per copy.

Sd. A. LAKSHMIPATHI.

Note:—The sum of Rs. 116—4—6 was given as donation by the batch of Village Vaidyas undergoing at Ellore.

Sd. A. LAKSHMIPATHI.

N.B. It may be noted that the Reception Committee would have spent an equal amount for conveyances, arrangements for the meetings, decorations, provisions of food and comforts for the visiting Vaidyas etc. They contributed almost everything in kind or labour. It is stated that the Reception Committee did not collect any cash donations. Several members shared the responsibility in their own places. It is really a novel method today, but it is not new to India, that people co-operate with each other and accomplish their object without having recourse to cash collections.

Sd. A. LAKSHMIPATHI.

II

AROGYA YAATRA ESTABLISHMENT OFFICE STAFF

SECRETARIAT DUPARTMENT

- | | |
|----------------------------------|--------------------------|
| 1. Nathani Venkatasubba Rao | Chtef Secretary. |
| 2. Ponnada Venkatachalapathi Rao | Joint Secretary. |
| 3. Kanamala Prakasham | Deputy Secretary |
| 4. Pervela Gopalakrishnamurthy | Office Superintendent. |
| 5. M. V. Seshacharyulu | } Assistant Sectetaries. |
| 6. T. Ramachandra Rao | |
| 7. Y. Mahamkali Rao | } Upper Division Clerks. |
| 8. A. Ranga Rao | |
| 9. Shah Ahamad | } Lower Division Clerks. |
| 10. V. K. Ranganaikamma | |
| 11. Kachibhotla Kameswara Rao | } Record Keepers. |
| 12. G. Adinarayana | |

APPENDIX II

I

GOVERNMENT OF ANDHRA PRADESH

HEALTH DEPARTMENT

HYDERABAD

Dated, the 16th December, 1957

From

Sri S. S. A. Mohiuddin, B. Sc.,
Assistant Secretary to Government.

To

Dr. A. Lakshmipathi,
'Bhishagratna'
Honorary Principal,
Government Ayurvedic College,
Trivandrum.

Sir,

I am directed to forward herewith a copy of G.O.Ms. No. 2513
Health dated the 16th December, 1957 for information,

Yours faithfully
(Sd) S. S. A. MOHIUDDIN,
Assistant Secretary to Govt.

GOVERNMENT OF ANDHRA PRADESH

ABSTRACT

Indian Medicine Department—Dr. A. Lakshmipathi, President,
Board for Aayurveda—Model Aayurvedic Health Exhibition in
Dendulur Firka (West Godavari District)—Payment of a token
grant—Sanctioned.

HEALTH DEPARTMENT

G. O. Ms. No. 2513 Health. Dated the 16th December, 1957,

Read the following :

From Dr. A. Lakshmipathi President, Board for Aayurveda,
Letter dated 27-10-19 7.

From the Special Officer, Indian Medicine Department, Letter
No. 20547-A 3/57-1 dated 29-11-1957.

ORDER

Sanction is accorded to the payment of a token grant of Rs, 100/
(Rupees one hundred only) to Dr. A Lakshmipathi, President,
Board for Aayurveda, to run a model Aayurvedic Health Exhibition
in Dendulur Firka, West Godavari District, in January 1958.

2. The expenditure will be met from the relevant sub-head
under "38. Medical" in the Budget Estimates for 1957—58 by
reappropriation.

(By Order of the Governor)

L. N. GUPTA.

Secretary to Government

To

The Special Officer, Indian Medicine Department, Hyderabad
Dr. A. Lakshmipathi., President. Board for Aayurveda (with
covering letter).

The Accountant - General, Andhra Pradesh. through Finance
(with enclosure).

Copy to Finance (with enclosure).

(True Copy : Forwarded : By Order)

M. E. 16.12

Superintendent.

II

GOVERNMENT OF ANDHRA PRADESH

HEALTH DEPARTMENT

Memorandum No. 74146- K2/57-4, Health Dated 31st December, 57

Sub:- Indian Medicine Department-Deputation of Village Vaidyas and Inspecting Medical Officer to the Aayurvedic Health Expedition at Dendulur firka (West Godavari District) Orders passed

Ref:- Dr. A. Lakshmipathi, letter dated 9-12-57 From the Special Officer, Indian Medicine Department, letter No. 2340/G1/37 dated 16-1-57.

The Special Officer is permitted to depute the Village Vaidyas undergoing training at Eluru to the Aayurvedic Health Expedition to be conducted at Dendulur Firka (West Godavari District) from 10th January to 17th January, 1958. The period of their deputation will be treated as working days. The Special Officer is informed that the Government will not meet any expenditure on account of the deputation of the Village Vaidyas to the said Aayurvedic Health Exhibition.

2. The Special Officer is permitted to depute the Inspecting Medical Officer to the Aayurvedic Health Exhibition in Dendulur Firka (West Godavari District) to assist the President Board for Ayurveda in making arrangements at the Exhibition. The T. A. and D. A. on account of deputation of the Inspecting Medical Officer will be met from the Departmental Budget.

(Sd) L. N. GUPTA,
Secretary to Government.

To

The Special Officer, Indian Medical Department, Hyderabad.
Copy to

Dr. A. Lakshmipathi, Bhishagratna, C/o. Registrar, Board for Ayurveda & Homeopathy. Motigalli. Charminar, Hyderabad (with covering letter)

The Accountant-General, Andhra Pradesh, Hyderabad.
Through Finance.

Forwarded By Order.
(Sd) SUPERINTENDENT.

APPENDIX III

GOVERNMENT OF ANDHRA PRADESH

HAR PRASAD B. A.,
Deputy Secretary to Govt.

HYDERABAD:
Dated the 31st Dec. '57.

PLANNING & DEVELOPMENT (Prog. VII) DEPARTMENT
D. O. No. 203038 Prog. VII/57-2.

Dear Sri Lakshmipathi,

Sub: Arogya Yatra—Aayurvedic Health Expedition to be conducted in Dendulur and Bhimadole Firkas from 10th to 17th January 1958—Transport facilities to participants—Arrangement of.

Ref: Your letter dated 21st December, 1957 addressed to Sri C. Narasimham, Secretary to Government Planning and Development Department.

Please refer your letter cited wherein you have been kind enough to extend the invitation to the Secretary, Planning & Development Department, to preside over one of the meetings of the Health Expedition on any day between 10th to 17 January, 1958. I am to inform you that owing to his pre-occupations with some other urgent and important work, the Secretary regrets his inability to participate in the Health Expedition.

Regarding the arrangement of transport facilities to the participants of the Health Expedition, you are requested to contact the Collector, West Godavari.

Yours sincerely,
(Sd.) HAR PRASAD.

To

Dr. A. Lakshmipathi, B.A., M.B., & C.M.,
President, Board of Ayurveda,
Andhra Pradesh, HYDERABAD

APPENDIX IV

GOOD WISHES

I

MINISTER FOR HEALTH

New Delhi,

2nd January, 1958.

My dear Dr. Lakshmipathi,

I am happy to learn that you are undertaking an Arogya Yaatra with a view to propagate ideas of health amongst the masses. I agree that there is great service to be rendered in the field of preventive medicine. In fact, if our people know how to live healthily, there is less need for curative efforts. I wish you all success in this healthy innovation and I should like to know in due course, about your successful Yaatra.

With best wishes

Yours sincerely,

(Sd.) D. P. KARMAKAR

Dr. A. Lakshmipathi, B. A., M. B., & C. M.,
Bhishagratna, President, Andhra Aayurvedic Board,
Andhra Pradesh.

(True copy)

CHAPTER VI

II

A. KALESWARARAO

Speaker.

Nagarjuna Vihar,
Himayat Nagar, Hyderabad.

Sir,

I am in receipt of your invitation. I congratulate you for your venture to arrange Arogya Yaatra in Dendulur and Bhimadole Firkas. This will prove to be an encouragement to the Aayurvedic Physicians practising in the villages. Villagers will then have confidence in Aayurveda. Aayurveda is a boon to villagers and the poor. People have to put forth great efforts for its revival. It is unfortunate that even after the achievement of independence, the State Government are not showing interest for the regeneration of Aayurveda. The Allopathic treatment, being costly, cannot be made available to the poorer sections of the people. Moreover, Allopathic doctors, accustomed to live in cities, do not come forward to live in villages. So to suit the conditions of our country, the revival of Aayurveda is inevitable. Arrangements must be made to give due training to Village Vaidyas. You are fortunate in having the guidance and leadership of Dr. Lakshmipathi.

I wish your Arogya Yaatra all success

(Sd.) A. KALESWARARAO

III

DIRECTORATE-GENERAL OF HEALTH SERVICES

New Delhi, the 23rd Nov. 1957.

Dear Dr. Lakshmipathi,

I regret very much I did not have an opportunity to discuss with you at Trivandrum your proposal for National Health Expedition, a copy of which you sent me with your letter of the 15th instant. I have gone through your plan and I find that the programme

of work you have in mind is on the lines of health week campaign conducted in various parts of the country. I, therefore, appreciate your efforts in promoting health consciousness in the villages in our country, and I wish you every success.

With kind regards,

Yours sincerely,
(Sd.) C. K. LAKSHMANAN

Dr. A Lakshmipathi,
Honorary Principal,
Aayurveda College,
Trivandrum.

IV

MINISTRY OF HEALTH, INDIA.

New Delhi, January 28, 1958.

My dear Dr. Lakshmipathi,

I have been extremely pleased to learn about your Arogya Yaatra which is most appropriate at this hour of our national awakening. If this example is followed by other provincial Vaidyas there will be sure and certain improvement of our science. I hope you will kindly write your experience of this kind of Yaatra and your achievement as soon as you complete your mission. I again thank you for your 'Tapashya'

Yours sincerely,
(Sd.) K.V.J. PRATAP SIMHA

Dr. A. Lakshmipathi,
President,
Andhra Aayurvedic Board, Andhra Pradesh,
HYDERABAD.

V

PLANNING COMMISSION

Dr. T. Lakshminarayana
Chief, Health Division

NEW DELHI
January 8-1-1958.
Pousha. 18, 1879.

Dear Shri Venkata Ramayya,

I have received your invitation for the inauguration of Arogya Yaatra by the Minister for Social Welfare & Labour, Andhra Pradesh, according to the plan for Dr. A. Lakshmipathi. It is extremely important to rouse the interest of the people in village sanitation and health and secure their active participation. It is hoped that the movement would spread over the whole of Andhra and that the example would be followed in all other States. May the message of Arogya Yaatra be a clarion call and blaze the trail of a country-wide campaign.

With all good wishes for the success of the function.

Yours sincerely,
(Sd.) T. LAKSHMINARAYANA

Sri Toluganti Venkata Ramayya,
Chairman, Reception Committee, Seetampet, Eluru,
West Godavari District, Andhra.

APPENDIX V

A NOTE ON WHO IS A QUACK *

The quack is one who boasts that he can cure all diseases and who deceives the patients. The Village Vaidya, who may be a landlord or a Poojaari or a barber does not depend for his livelihood, upon his earnings by the practice of medicine. He only helps the people, who have confidence in him and who come to him in their suffering. He does his best by giving the patient some medicine or some soothing words of advice. Very often nature cures the disease. If the patient willingly gives him something, he will accept it. There is no coercion. The time-honoured institution of the Village Vaidya in India should not be discouraged but improved by offering more facilities to these part-time and honorary Vaidyas to improve their knowledge and to make them more useful to the people by making their treatment up-to-date.

VILLAGE VAIDYA—A REAL BENEFACTOR

To call the Village Vaidya a quack is very wrong. Quacks are elsewhere. The Aayurvedic physician is wrongly considered by some Allopathic doctors as a quack. This is on account of their ignorance of the principles of Aayurveda, which are very simple to operate. People in India easily know who is a real pretender (quack) and who is a real benefactor.

THE OBJECT OF MEDICAL REGISTRATION

The object of Medical Registration should be protective but not merely to execute the penal clauses. No registration can prevent a

* By Dr. A. Lakshmipathi, Honorary Principal, Aayurvedic College, Trivandrum, President Andhra Aayurvedic Board and Chairman, Village Vaidya Examinations, Andhra Pradesh. Trivandrum, Dated 5th April 1958.

man from taking a medicine from one in whom he has confidence. Sometimes the uttering of a Mantra cures a man. No one can think of punishing such a person who has nothing to gain but the gratitude of the people under his treatment.

MODERN MEDICINE IS STILL A DOUBTFUL SCIENCE

After all, modern medicine is a doubtful science, because much of the success of medical treatment depends upon faith. People are now deceived in the name of science. At present, there is a lot of accretion of unnecessary details in the curriculum of medical studies which a general medical practitioner need not know for successful treatment of a patient, who is suffering from common diseases. The knowledge that Paludrine in a chemical formula of N-p-Chloro-phenyl, 1. N-Iso-propyl-Bi-Gaunide does not help a physician in the treatment of malaria. But, it will help him very much, if he knows whether it is heating or cooling and its effect on Vaata, Pitta and Kapha constitutions and derangements. This can be learnt only by clinical experience and through research in Aayurveda.

WORST QUACKS

Those who boast of the great efficiency of antibiotics and use them in and out of season, without making the necessary laboratory tests, are the worst quacks. Unqualified compounders trained by Allopathic Doctors are the worst offenders in this matter. They are encouraged by their masters, who train them to serve their purpose as assistants, disclaim them and blame them as quacks afterwards, because they sometimes become more popular than the doctors themselves.

ĀYURVEDA IS DEEPLY ROOTED IN THE SOIL OF INDIA

The Village Vaidya knows better when to starve a patient or when to give a purgative. The so-called scientific men do not know this so well. I have learnt a great deal from the unostentatious Vaidya, who may be illiterate and from old women, whose knowledge is not from books. I feel humble when I see that they are still the

ustodians of some of the treasures of Aayurveda. I am yet to know definitely, when ginger, Pippali or pepper are to be used severally or in combination. The old women know very well, which of these is to be used and when. The scientific doctor will say why not use chillies instead. Although all the four are pungent, they have widely different physiological properties and therapeutical uses.

Pippali (Piper longum) is cooling and sweet. It is used to check the Thridoshas. Pippali is combined with ginger to check Vaata and with pepper to check Kapha. By itself, it may be used to check Pitta.

Maricham (pepper) is dry (Rooksham) and heating. It is acute (Teeshnam). It is a good digestive and carminative. It checks Vaata and Kapha and promotes Pitta.

Sunthi (ginger) is also heating but is Snigdha (oily). It is a tonic and aphrodisiac. It checks Aama and is anti-rheumatic.

All the three are together used to check the three Doshas, and in rejuvenation (Rasaayana) treatment each is used in its own way.

NEED FOR CO-ORDINATED RESEARCH

In India, we have a system of medical practice, which may not be applicable to other countries. It is our duty to encourage co-ordinated research by making use of this traditional knowledge that is still in the soil. Aayurvedic Gurukulas must, therefore, be saved. Let us live and let live. This is the principle of Panchasheela, which Pandit Jawaharlal Nehru is advocating.

APPENDIX VI

AROGYAYAATRA

PILGRIMAGE FOR HEALTH

CERTIFICATE OF MERIT

It is hereby certified that Sri/Srimathi/Kumari.....
of.....Village.....District took part in the
Arogyayaatra conducted under the leadership of Dr. Achanta
Lakshmipathi, B.A.,M.B. and C.M. Bhishagratna, President, Andhra
Ayurvedic Board, Hyderabad, that He/She/has done meritorious
services during the Yaatra for the promotion of health of the People
that He/She is Placed in.....Class.....

President :

AROGYA YAATRA
COMMITTEE

President :

ANDHRA AYURVEDIC BOARD,
HYDERABAD.

Signature.

ELURU

Date,

APPENDIX VII

LETTER FROM THE PRESIDENT OF INDIA

OFFICE OF THE MILITARY SECRETARY
TO THE PRESIDENT, INDIA.

President's Camp.
Rashtrapathi Nilayam,
BOLARUM,
4th July '58.

Dear Sir,

Further to this office letter of even number dated the 12th May, 1956, I am directed to say that while the President appreciates your kind invitation to inaugurate the 'Aayurvedic Gurukula Ashramam' at Dendulur, it is regretted that in view of many engagements to which the President is committed, it will not be possible for the President to visit Dendulur for this purpose.

Yours faithfully,

(Sd.) HARNARAIN SINGH

Maj. General.

Military Secretary to the President

Dr. A. Lakshmipathi, B.A., M.B. & C.M.,
Bhishagratna,
President, Andhra Ayurvedic Board,
Arogya Ashramam, Avadi,
Madras.

AAYURVEDIC ENCYCLOPAEDIA

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